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## HENDERSON COUNTY LAND USE PLAN

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HENDERSON COUNTY  
NORTH CAROLINA

LAND USE PLAN

THE PREPARATION OF THIS REPORT WAS FINANCED  
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GRANT FROM THE DEPARTMENT OF NATURAL AND  
ECONOMIC RESOURCES OF THE STATE OF NORTH  
CAROLINA

HENDERSON COUNTY  
NORTH CAROLINA  
JUNE, 1977





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## CHAPTER 1

### INTRODUCTION

#### PURPOSE

THE FACTORS WHICH INFLUENCE THE SHAPE AND DIRECTION OF HENDERSON COUNTY'S GROWTH ARE MANY AND VARIED: PATTERNS OF LAND OWNERSHIP, AVAILABILITY AND PRICE OF LAND, TOPOGRAPHY, ACCESS TO MARKETS AND TRADE CENTERS, AVAILABILITY OF UTILITIES AND THE GOALS AND IDEALS OF THE CITIZENS THEMSELVES.

OFTEN TIMES THESE INFLUENCES RESULT IN LAND USE RELATIONSHIPS WHICH ARE AT BEST INCONVENIENT AND AT WORST UNHEALTHFUL AND UNSAFE.

THE PURPOSE OF THE HENDERSON COUNTY LAND USE PLAN IS TO PROVIDE A BASIC FRAMEWORK FOR THE GUIDANCE OF FUTURE GROWTH. THE LAND USE PLAN IS CONCERNED WITH THE LOCATION, AMOUNT AND INTENSITY OF LAND DEVELOPMENT.

A STATEMENT OF COMMUNITY GOALS AND OBJECTIVES PROVIDES A FOUNDATION, A "STARTING POINT" AGAINST WHICH DECISIONS RELATING TO LAND DEVELOPMENT SHOULD BE WEIGHED. BECAUSE THESE GOALS GUIDE THE PUBLIC DECISION-MAKING PROCESS, THEY HAVE A GREAT SIGNIFICANCE FOR THE PRIVATE SECTOR--THE MERCHANT, THE HOMEOWNER, THE INDUSTRIALISTS SEEKING TO LOCATE IN THE COUNTY.

GOALS STATEMENTS AND IMPLEMENTATION OF POLICIES ARE OF LITTLE VALUE WITHOUT SOME COMMITMENT TO THEM BY THE BOARD OF COUNTY COMMISSIONERS AND THE PLANNING BOARD. FOR THIS REASON, FORMAL ADOPTION OF A GOALS STATEMENT AS PART OF THE COMPREHENSIVE DEVELOPMENT PLAN IS STRONGLY RECOMMENDED. THE

HENDERSON COUNTY PLANNING BOARD FORMALLY ADOPTED THE GOALS AND OBJECTIVES STATEMENT ON JUNE 22, 1976. THE HENDERSON COUNTY BOARD OF COMMISSIONERS ADOPTED THE GOALS AND OBJECTIVES STATEMENT ON JUNE 30, 1976. THIS IS IMPORTANT BECAUSE, AT THE POLICY LEVEL, THESE OFFICIALS WILL BE FACED WITH THE DECISIONS THAT WILL DICTATE FUTURE GROWTH AND DEVELOPMENT IN HENDERSON COUNTY.

WHILE IT IS NOT ASSERTED THAT THIS LIST INCLUDES ALL DESIRABLE GOALS FOR HENDERSON COUNTY, NOR THAT THEY WILL BE AGREED UPON BY ALL CITIZENS, THEY DO FORM A BASIS FOR DISCUSSION IN THE COMMUNITY AND THUS A FOUNDATION FOR THE COUNTY'S COMPREHENSIVE DEVELOPMENT PLAN.

### GOALS AND OBJECTIVES

#### GENERAL DEVELOPMENT GOALS

- A. PROVIDE A LIVING ENVIRONMENT FOR ALL CITIZENS OF HENDERSON COUNTY WHICH IS SAFE, HEALTHY, CONVENIENT, EFFICIENT AND ATTRACTIVE.
- B. PROVIDE RESIDENTIAL, AGRICULTURAL, COMMERCIAL, INDUSTRIAL, RECREATIONAL, SOCIAL AND CULTURAL DEVELOPMENT TO MEET THE NEEDS OF ALL HENDERSON COUNTY RESIDENTS.
- C. PROVIDE A WIDE RANGE OF EMPLOYMENT OPPORTUNITIES TO ALL HENDERSON COUNTY RESIDENTS.
- D. PROVIDE NECESSARY PUBLIC AND PRIVATE FACILITIES AND SERVICES IN A PLANNED AND ORDERLY MANNER.
- E. PRESERVE AND PROTECT THE ENVIRONMENT OF HENDERSON COUNTY INCLUDING LAND, AIR AND WATER RESOURCES.



- F. ENCOURAGE COORDINATION AND EFFICIENCY OF FEDERAL, STATE, LOCAL AND PRIVATE AGENCIES AND PROGRAMS.
- G. CONSIDER THE DESIRES OF THE CITIZENS OF HENDERSON COUNTY.

REALIZING THAT THERE ARE LIMITED NATURAL AND MAN-MADE RESOURCES AVAILABLE FOR DEVELOPMENT IN HENDERSON COUNTY AND THAT UNCOORDINATED AND UNPLANNED DEVELOPMENT OF THE RESOURCES MAY BE DETRIMENTAL TO THE GENERAL PUBLIC HEALTH AND WELFARE, THE FOLLOWING SPECIFIC GOALS HAVE BEEN ADOPTED TO HELP FORMULATE A SOUND PLANNING PROGRAM FOR HENDERSON COUNTY.

### SPECIFIC DEVELOPMENT GOALS

#### I. RESIDENTIAL DEVELOPMENT GOALS

- A. PROVISIONS FOR A MIXTURE OF HOUSING TYPES SHOULD BE PLANNED FOR THROUGHOUT HENDERSON COUNTY.
- B. LOW, MEDIUM AND HIGH DENSITY RESIDENTIAL AREAS SHOULD BE PROVIDED IN FUTURE RESIDENTIAL LAND USE DECISIONS.
- C. LAND NOT SUITABLE FOR DEVELOPMENT, SUCH AS FLOOD PLAINS OR STEEP SLOPES, SHOULD BE IDENTIFIED AND AVOIDED.
- D. RESIDENTIAL STREETS SHOULD BE DESIGNED TO ADEQUATELY SERVE THE RESIDENTS OF THE AREA AND DISCOURAGE THROUGH TRAFFIC.
- E. PUBLIC WATER AND SEWER SHOULD BE USED WHEN POSSIBLE WHEN DEVELOPING NEW RESIDENTIAL AREAS. WHERE SEPTIC TANKS AND WELLS ARE TO BE USED, ADEQUATE LAND SHOULD BE AVAILABLE TO INSURE SOUND HEALTH STANDARDS.

- F. NEW RESIDENTIAL AREAS MAY BE BOUNDED BUT SHOULD NEVER BE CROSSED BY MAJOR THOROUGHFARES.
- G. SETBACKS, OPEN SPACE AND NATURAL BUFFERS SHOULD SEPARATE RESIDENTIAL AREAS FROM THE NOISE, HEAVY TRAFFIC, AIR POLLUTION AND GENERAL CONGESTION ASSOCIATED WITH COMMERCIAL AND INDUSTRIAL LAND USES.
- H. THE ESTABLISHED, VIABLE NEIGHBORHOODS AND RESIDENTIAL AREAS SHOULD BE PROTECTED FROM UNDESIRABLE ENCROACHMENT BY COMMERCIAL AND INDUSTRIAL LAND USES.
- I. THE NATURAL BEAUTY AND SCENIC VALUE OF AN AREA SHOULD RECEIVE AS MUCH ATTENTION FROM RESIDENTIAL DEVELOPERS AS DO ECONOMIC GAINS.
- J. RESIDENTIAL DEVELOPMENT SHOULD BE AVOIDED NEAR AIRPORTS.
- K. PROGRAMS AND POLICIES SHOULD BE ADOPTED TO REVITALIZE DETERIORATING RESIDENTIAL AREAS.
- L. A SYSTEMATIC LOCAL GOVERNMENT PROGRAM OF AREA BEAUTIFICATION SHOULD BE ESTABLISHED NOT ONLY FOR OLDER RESIDENTIAL AREAS, BUT INCORPORATED INTO THE PLANNING OF NEW RESIDENTIAL DEVELOPMENT.
- M. REGULATORY CODES AND LOCATION STANDARDS SHOULD BE ADOPTED AND ENFORCED TO AID IN THE SAFE AND EFFICIENT DEVELOPMENT OF RESIDENTIAL AREAS IN HENDERSON COUNTY.

## II. AGRICULTURAL DEVELOPMENT GOALS

- A. TO PROMOTE SOIL AND WATER CONSERVATION PLANNING AT ALL LEVELS OF GOVERNMENT AND ENCOURAGE THE DEVELOPMENT OF MORE EFFICIENT PROGRAMS TO MINIMIZE FLOODING OF

AGRICULTURAL LAND AND ALLEVIATE DRAINAGE AND SOIL EROSION PROBLEMS IN HENDERSON COUNTY.

- B. AGRICULTURAL LAND SHOULD BE PRESERVED TO THE FULLEST EXTENT POSSIBLE CONSISTENT WITH THE REALITIES OF A BALANCED ECONOMY.
- C. INDIVIDUAL AS WELL AS COUNTY-WIDE CONSERVATION PLANS SHOULD BE DEVELOPED IN COOPERATION WITH THE SOIL CONSERVATION SERVICE AND OTHER STATE AGENCIES. THESE PLANS SHOULD AID IN DETERMINING THE BEST USE OF RURAL AND AGRICULTURAL LANDS AND PROTECT THE FUTURE LAND AND WATER NEEDS OF THE COUNTY.

### III. INDUSTRIAL DEVELOPMENT GOALS

- A. TO PROVIDE A CHOICE OF INDUSTRIAL SITES THROUGHOUT THE COUNTY WITH AVAILABLE SERVICES SUCH AS WATER, SEWER AND TRANSPORTATION NETWORKS INCLUDING HIGHWAY, RAIL AND AIR FACILITIES.
- B. TO PROMOTE AND ENCOURAGE SMALL, CLEAN, LIGHT INDUSTRY COMPATIBLE WITH THE AVAILABLE WORK FORCES.
- C. TO MINIMIZE THE UNDESIRABLE EFFECTS OF INDUSTRY ON RESIDENTIAL AND COMMERCIAL AREAS BY PROPER USE OF OPEN SPACE, BUFFERS AND SETBACKS.
- D. TO MINIMIZE THE NOISE, AIR AND WATER POLLUTION ASSOCIATED WITH INDUSTRIAL LAND USE.

### IV. COMMERCIAL DEVELOPMENT GOALS

- A. TO MINIMIZE FURTHER STRIP COMMERCIAL DEVELOPMENT

ALONG MAJOR THOROUGHFARES AND IMPROVE THE APPEARANCE AND TRAFFIC SAFETY OF EXISTING COMMERCIAL AREAS.

- B. TO PROVIDE CONCENTRATIONS OF HIGHWAY ORIENTED BUSINESSES IN UNIFIED DEVELOPMENTS AT INTERSECTIONS OF SELECTED MAJOR THOROUGHFARES AS AN ALTERNATIVE TO STRIP COMMERCIAL DEVELOPMENT (PLANNED COMMERCIAL DISTRICTS),
- C. ENCOURAGE THE REVITALIZATION OF THE HENDERSONVILLE CENTRAL BUSINESS DISTRICT AS A CENTER OF FINANCE AND TRADE.

TO ATTAIN THE GOALS STATED ABOVE, THE FIRST IMPORTANT STEP TO FOLLOW IS THE PREPARATION OF A LONG RANGE PLAN FOR THE PHYSICAL DEVELOPMENT OF HENDERSON COUNTY--THE LAND USE PLAN.

ACHIEVING THE LAND USE PLAN (AND THE GOALS IT REPRESENTS) WILL REQUIRE THE ENACTMENT OF APPROPRIATE ORDINANCES AND WILL REQUIRE THE ENFORCEMENT THEREOF.

THE ZONING ORDINANCE IS ONE OF THE MOST EFFECTIVE ORDINANCES FOR IMPLEMENTING THE LAND USE PLAN. THE ZONING ORDINANCE IS DIRECTLY CONCERNED WITH THE USE OF LAND, THE INTENSITY OF LAND USE AND THE PLACEMENT OF BUILDINGS ON THE LAND. ALL OF HENDERSON COUNTY SHOULD HAVE ZONING PROTECTION.

SUBDIVISION REGULATIONS GUIDE NEW DEVELOPMENT OF LAND. THEY OUTLINE STREET REQUIREMENTS AND GENERAL DESIGN, THE RELATIONSHIP OF A PARTICULAR SUBDIVISION TO ADJOINING PROPERTIES AND IN GENERAL DESCRIBE THE TYPE OF IMPROVEMENTS THE COMMUNITY EXPECTS LAND DEVELOPERS TO PROVIDE IN EXCHANGE FOR THE PRIVILEGE OF MAKING A PROFIT FROM HENDERSON COUNTY'S ONLY IRREPLACEABLE



RESOURCE--THE LAND ITSELF.

THE GENERAL GOAL OF A SAFE, HEALTHY ENVIRONMENT CANNOT BE ATTAINED WITHOUT THE ENFORCEMENT OF COUNTY-WIDE BUILDING AND RELATED CODES. THESE CODES APPLY TO NEW CONSTRUCTION AND TO MAINTENANCE OF EXISTING STRUCTURES, AND AIM AT STRUCTURAL SAFETY AND SAFETY FROM FIRE IN PUBLIC AND PRIVATE BUILDINGS.

THESE ARE THE MOST IMPORTANT ORDINANCES WHICH CAN BE EFFECTIVE INSTRUMENTS IN ATTAINING THE STATED GOALS. IN ADDITION, MANY DAY-TO-DAY DECISIONS BY PUBLIC OFFICIALS, TRADE ASSOCIATIONS AND PRIVATE CITIZENS WILL BE DIRECTLY RELATED TO THE ACHIEVEMENT OF THE GOALS AND PROGRAMS INCORPORATED IN THE HENDERSON COUNTY LAND USE PLAN. IT IS ANTICIPATED THAT CHANGING CONDITIONS, IMPROVED TECHNIQUES AND INCREASED PUBLIC PARTICIPATION WILL PROVIDE THE IMPETUS TO REVISE AND AMEND THIS INITIAL EFFORT FROM TIME TO TIME.

## CHAPTER 2

### EARLY HISTORY

THE LAND KNOWN AS HENDERSON COUNTY WAS ORIGINALLY CHEROKEE LAND, USED BY THE INDIANS FOR HUNTING GROUNDS DURING THE SUMMER AND EARLY FALL. IN 1785 THE TREATY OF HOPEWELL PUSHED THE INDIANS BEYOND THE BLUE RIDGE MOUNTAINS AND OPENED A NEW FRONTIER FOR SETTLEMENT. IMMEDIATELY MANY SETTLERS CAME INTO THE VIRGIN LAND. A GREAT MANY WERE SOLDIERS WHO WERE GIVEN LAND GRANTS OF VARYING SIZES ACCORDING TO THEIR RANK IN THE CONTINENTAL ARMY. SOME WERE ADVENTURERS AND EXPLORERS, AND MANY WERE JUST SEEKING A BETTER EXISTANCE.

AMONG THE EARLIEST KNOWN SETTLERS WAS WILLIAM MILLS, WHO CAME FIRST TO THE AREA KNOWN AS FRUITLAND, WHERE HE SPENT MOST OF HIS LIFE; HE THEN ACQUIRED LAND IN THE MILLS RIVER SECTION IN ONE OF THE ORIGINAL LAND GRANTS RECORDED IN 1787. MILLS, A LOYALIST DURING THE REVOLUTIONARY WAR, WAS WOUNDED IN THE BATTLE OF KING'S MOUNTAIN. HE ESCAPED, MADE HIS WAY WEST AND HID IN A CAVE ON SUGAR LOAF MOUNTAIN UNTIL HIS WOUNDS HEALED. APPARENTLY HE ASKED FOR AND RECEIVED A PARDON, SINCE HE LATER SERVED IN THE REVOLUTIONARY ARMY. HIS LOYALIST SYMPATHIES RESULTED IN THE CONFISCATION OF PROPERTY HE OWNED ON THE GREEN RIVER, SO HE BROUGHT HIS FAMILY TO THE NORTHEAST SECTION OF WHAT WOULD LATER BECOME HENDERSON COUNTY.

IT WAS THE HABIT OF WILLIAM MILLS TO PLANT AT LEAST 100 FRUIT TREES A YEAR IN THE AREA AROUND HIS HOME, MOSTLY CHERRY AND APPLE TREES. THIS LED TO THE NAMING OF THE COMMUNITY OF

FRUITLAND AND WAS THE PREDECESSOR OF THE GIANT APPLE INDUSTRY OF HENDERSON COUNTY TODAY. MILLS IS ALSO CREDITED WITH SUCH PICTURESQUE NAMES IN THE COUNTY AS BEARWALLOW, SUGAR LOAF AND BALD TOP.

ALSO RECEIVING LAND GRANTS IN THE YEAR 1787 WERE WILLIAM STATON AND JOHN DAVIS IN THE SOUTHERN PART OF THE COUNTY ALONG GREEN RIVER.

NOT LONG AFTER WILLIAM MILLS SETTLED NEAR FRUITLAND, TWO BROTHERS, SAMUEL AND ASA EDNEY SETTLED NEAR BY. EACH MARRIED A DAUGHTER OF WILLIAM MILLS, ASA SETTLING ON CLEAR CREEK AND SAMUEL SETTLING IN AN AREA LATER NAMED EDNEYVILLE. THE ASA EDNEY HOUSE ON CLEAR CREEK WAS BUILT ABOUT 1800, ON A ROAD TRAVELED BY DROVERS MAKING THEIR WAY FROM TENNESSEE AND KENTUCKY TO SOUTHERN MARKETS. THE EDNEY HOUSE BECAME A REGULAR STOPPING PLACE FOR TRAVELERS ALONG THIS ROAD.

AT APPROXIMATELY THE SAME TIME, A SETTLEMENT WAS DEVELOPING IN THE FLAT ROCK AREA AROUND A MILL OWNED BY JOHN EARLE. IN 1790 HE RECEIVED A LAND GRANT FOR EXTENSIVE PROPERTY IN FLAT ROCK AND BEGAN BUILDING A ROAD FROM HIS HOME NEAR LANDRUM, S. C., THROUGH THE SALUDA GAP, TO HIS FARM AND MILL AT FLAT ROCK. THIS ROAD, COMPLETED ABOUT 1800, OPENED THE SOUTHERN PORTION OF THE COUNTY, MAKING IT MORE ACCESSIBLE FOR TRAVEL AND TRADE. WITHIN A FEW YEARS, OTHER SETTLERS CAME FROM SOUTH CAROLINA. NOTABLE AMONG THESE WERE DANIEL BLAKE, A RICE PLANTER WHO SETTLED ON CANE CREEK IN 1826 NEAR THE PRESENT COMMUNITY OF FLETCHER, AND CHARLES BARING, ALSO A RICE PLANTER, WHO PURCHASED LAND AT FLAT ROCK AS EARLY AS 1827. CHARLES BARING

CONTINUED PURCHASING LAND AND ACQUIRING IT BY GRANT UNTIL IN 1833 RECORDS INDICATE HE OWNED APPROXIMATELY 3,000 ACRES. AS THE AREA AROUND FLAT ROCK BECAME POPULAR WITH THE WEALTHY FAMILIES OF CHARLESTON AS A SUMMER RESIDENCE, BARING SOLD OFF TRACTS OF THIS LAND.

MURRAY'S INN WAS KEPT FOR MANY YEARS BY WILLIAM MURRAY ON THE OLD HOWARD GAP ROAD AND WAS A FAVORITE STOPPING PLACE FOR PEOPLE TRAVELING THE ROAD. THE COMMUNITY WAS FIRST CALLED MURRAYVILLE, THEN LIMESTONE, SHUFORDVILLE, AND EVENTUALLY FLETCHER. ONE OF THE EARLIEST POST OFFICES IN THE COUNTY WAS ESTABLISHED THERE IN 1827 WITH WILLIAM MURRAY AS POSTMASTER.

WILLIAM FLETCHER ACQUIRED LARGE TRACTS OF LAND NEAR THE MOUTH OF CANE CREEK EARLY IN THE HISTORY OF THE AREA. NOT LONG AFTERWARD, HE MOVED HIS FAMILY TO ALABAMA, BUT HIS SON, JOHN, RETURNED TO THE FAMILY LANDS AND SETTLED THE SECTION NOW BEARING HIS FAMILY NAME.

HENDERSON COUNTY WAS FORMED IN 1838 BY AN ACT OF THE NORTH CAROLINA LEGISLATURE. THE COUNTY WAS NAMED FOR JUDGE LEONARD HENDERSON, A NATIVE OF THE EASTERN PART OF THE STATE, WHO HAD NO KNOWN CONNECTION WITH THE AREA. THE LEGISLATION WHICH CREATED THE COUNTY ALSO PROVIDED FOR ITS GOVERNMENT. ELEVEN COMMISSIONERS WERE TO BE APPOINTED AND A COUNTY SEAT ESTABLISHED. THE LATTER SEEMINGLY SIMPLE TASK AROUSED MUCH PASSION IN THE NEW COUNTY AND TOOK THREE YEARS AND THREE TRIPS TO THE STATE SUPREME COURT TO SETTLE. TWO FACTIONS EMERGED; ONE, THE "RIVER PARTY," PREFERRED THE COUNTY SEAT BE LOCATED ON THE FRENCH BROAD RIVER AT WHAT IS NOW HORSE SHOE; AND THE "ROAD PARTY,"



PREFERRED A SITE ON THE BUNCOMBE TURNPIKE. THE DEBATE WAS SO BITTER THAT A REFERENDUM WAS HELD TO DECIDE THE MATTER. THE ROAD SITE WAS FAVORED AND THE COUNTY SEAT, TO BE KNOWN AS HENDERSONVILLE, WAS ESTABLISHED. JUDGE MITCHELL KING, JAMES BRITTAIN AND JOHN JOHNSON DEEDED A TOTAL OF 79 ACRES TO THE CHAIRMAN OF THE COUNTY COURT, WILLIAM BRITTAIN, IN 1841; THE FIRST LOTS WERE DRAWN UP IN 1846. THE 1830 CENSUS LISTED THE POPULATION OF HENDERSON COUNTY (WHICH AT THAT TIME INCLUDED A LARGE PART OF WHAT IS TODAY TRANSYLVANIA COUNTY) AT 5,129.

THE PATTERN OF SETTLEMENT IN THE AREA WHICH WAS TO BECOME HENDERSON COUNTY WAS AROUND THE PERIMETER RATHER THAN RADIATING FROM A CENTRAL POPULATION CONCENTRATION. REASONS FOR THIS BECAME APPARENT WHEN THE GEOGRAPHY OF THE AREA IS NOTED. SINCE THE COUNTY IS MOUNTAINOUS ON MOST OF ITS PERIMETER, SETTLERS ENTERED THE AREA AT THE POINTS OF LEAST RESISTANCE--THROUGH GAPS IN THE MOUNTAINS SUCH AS SWANNANOA GAP, MILLS GAP, HICKORY NUT GORGE, OTTANOLA, HOWARD GAP AND SALUDA GAP; OR THROUGH RIVER VALLEYS. THE EARLIEST SETTLERS CAME OVER ROUGH TRAILS AND PATHS MADE BY THE INDIANS, SETTLING FIRST IN THE PRESENT SECTION OF FRUITLAND, EDNEYVILLE, GREEN RIVER, ETOWAH, FLETCHER, MILLS RIVER AND OTTANOLA. SETTLEMENTS GREW UP ALONG THESE EARLY ROADS AROUND INNS ESTABLISHED TO SERVE TRAVELERS AND AROUND MILLS WHICH WERE BUILT ALONG STREAMS AND WERE USED FOR GRINDING GRAIN AND DRESSING LUMBER. ONLY AS THE POPULATION GREW, AND THE COUNTY SEAT WAS PLACED ON THE BUNCOMBE TURNPIKE, WHICH RAN NORTH-SOUTH ALONG THE

PRESENT ROUTE OF U.S. 25, DID THE CONCENTRATION OF PEOPLE BEGIN TO MOVE TOWARD THE CENTER OF THE COUNTY.

COMMUNICATION AMONG THE EARLY SETTLERS AND WITH THE OUTSIDE WORLD WAS DEPENDENT UPON THE ROADS...INFORMATION CAME VIA TRAVELERS. THE EARLY ROADS OF THE COUNTY WERE BARELY MORE THAN TRAILS, OFTEN DUSTY AND OCCASIONALLY SO MUDDY THEY WERE BARELY PASSABLE. ROAD MAINTENANCE WAS A RESPONSIBILITY OF EACH INDIVIDUAL TOWNSHIP. EVERY ABLE-BODIED MAN IN THE AREA WAS REQUIRED TO GIVE A CERTAIN NUMBER OF DAYS EACH YEAR, FURNISHING HIS OWN TOOLS, TO MAINTAIN THE ROADS. THIS RULE WAS DIFFICULT TO ENFORCE, SO EACH TOWNSHIP'S ROADS REFLECTED NOT ONLY THE PRIDE OF THE COMMUNITY, BUT THE ABILITY OF COMMUNITY LEADERS TO ENCOURAGE RESIDENTS TO WORK ON THE ROADS.

THE ROAD COMPLETED BY JOHN EARLE IN 1800 LINKED WITH AN EXISTING ROAD GOING NORTH INTO BUNCOMBE COUNTY TO MORRISTOWN (ASHEVILLE). THIS WAS LATER NAMED THE BUNCOMBE TURNPIKE, AND OFTEN CALLED THE STATE ROAD. A FEW YEARS LATER THE OLD HOWARD GAP ROAD WAS OPENED. THIS CAME THROUGH SALUDA GAP FROM TRYON AND FOLLOWED NEARLY A STRAIGHT LINE TO FLETCHER. ONE OF THE EARLIEST EAST-WEST ROADS THROUGH THE COUNTY WENT FROM OTTANOLA, AT THE JUNCTION OF RUTHERFORD AND POLK COUNTIES, THROUGH MILLS GAP, THEN NORTH INTO BUNCOMBE COUNTY. ANOTHER EARLY ROAD, KNOWN AS THE ESTATOE PATH, FOLLOWED THE FRENCH BROAD VALLEY, THEN CROSSED THE MOUNTAINS AT CAESAR'S HEAD AND CONTINUED TO GREENVILLE, S. C.

THE TEN YEARS BETWEEN 1840 AND 1850 SHOWS CONSIDERABLE GROWTH, WITH THE POPULATION INCREASING BY ABOUT ONE THIRD.



THE 1850 CENSUS RECORDS A POPULATION OF 6,853. THE OTHER FIGURES IN THE CENSUS REPORT INDICATE THE COUNTY CONSISTED OF PRIMARILY RURAL PEOPLE, LIVING OFF THE LAND, WITH THEIR LIMITED NEEDS BEING SUPPLIED BY COTTAGE INDUSTRY.

THE COUNTY CONTINUED IN MUCH THE SAME PATTERN UNTIL AN HISTORIC DATE, JULY 4, 1879, THE DAY THE FIRST TRAIN CAME TO HENDERSONVILLE. UNTIL THAT DATE, HENDERSON COUNTY HAD BEEN ACCESSIBLE ONLY OVER THE ROUGH, OFTEN POORLY MAINTAINED ROADS. TRAVEL BY WAGON OR COACH WAS AN ORDEAL, BUT WITH THE ADVENT OF THE RAILROAD, A NEW ERA OPENED IN THE COUNTY AS MORE AND MORE SUMMER VISITORS CAME AND THE TASK OF SHIPPING AGRICULTURAL PRODUCTS TO MARKET WAS MADE EASIER AND MORE PROFITABLE. AS VISITORS CAME TO THE COUNTY, HOTELS, STORES AND OTHER SERVICES WERE NECESSITATED; JOBS WERE CREATED AND THE ECONOMY GREW.

#### SOURCES:

SADIE SMATHERS PATTON, FLAT ROCK, CHURCH PRINTING COMPANY.

SADIE SMATHERS PATTON, THE STORY OF HENDERSON COUNTY, MILLER PUBLISHING COMPANY, 1947.

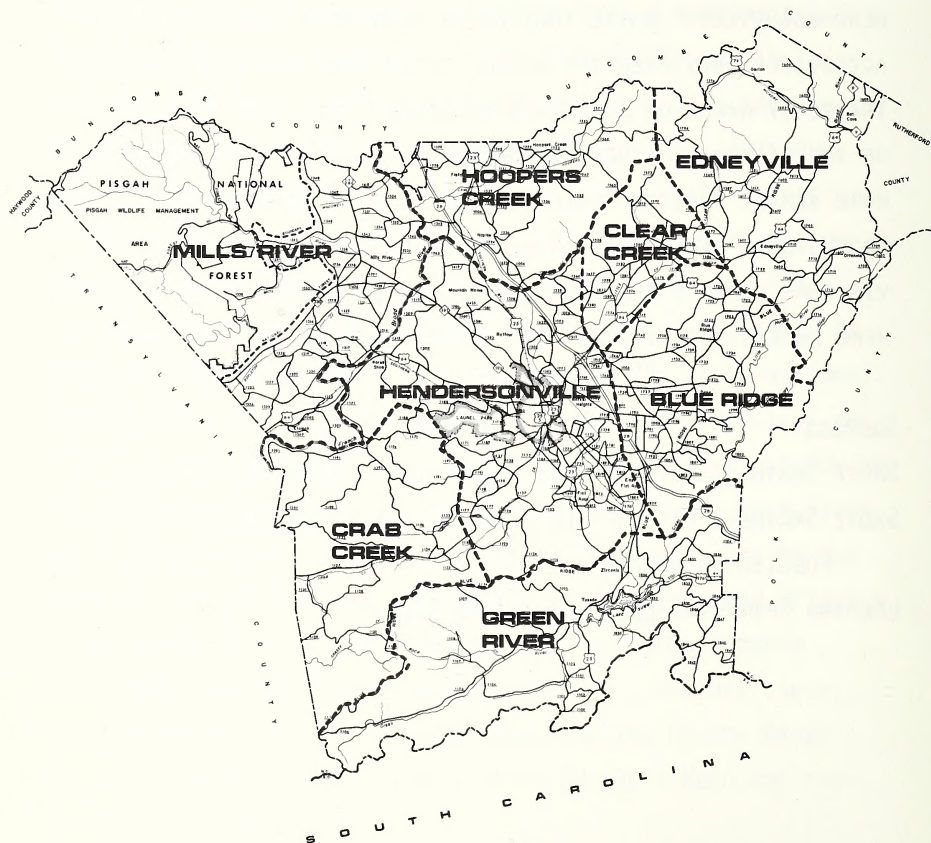
LEEMING GRIMSHAW, FLAT ROCK; 1836-1976.

REGION 8 - NORTH CAROLINA  
HENDERSON CO.

TOWNSHIPS



LAND OF SKY REGIONAL COUNCIL  
DATE PREPARED: JANUARY 1976



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## CHAPTER 3

### PHYSICAL ENVIRONMENT

#### GEOGRAPHICAL SETTING

HENDERSON COUNTY IS LOCATED IN THE BLUE RIDGE MOUNTAINS OF WESTERN NORTH CAROLINA. THE BLUE RIDGE RANGE IN WESTERN NORTH CAROLINA IS THE CULMINATING REGION OF THE APPALACHIAN MOUNTAIN RANGE AND CONTAINS SOME OF THE MOST RUGGED AND VARIED TOPOGRAPHY IN THE APPALACHIAN MOUNTAIN SYSTEM. THE COUNTY IS BORDERED BY TRANSYLVANIA AND HAYWOOD COUNTIES TO THE WEST, BUNCOMBE COUNTY TO THE NORTH, RUTHERFORD AND POLK COUNTIES TO THE EAST AND GREENVILLE COUNTY, S. C. TO THE SOUTH. HENDERSONVILLE IS THE COUNTY SEAT AND IS LOCATED NEAR THE CENTER OF THE COUNTY. HENDERSON COUNTY HAS AN AREA OF 378 SQUARE MILES OR 241,920 ACRES.

#### CLIMATE

HENDERSON COUNTY IS SURROUNDED BY MOUNTAINS WHICH REACH ELEVATIONS OF 5,000 FEET OR MORE ABOVE SEA LEVEL. A LARGE PORTION OF HENDERSON COUNTY LIES CLOSE TO THE 2,200 FOOT LEVEL WITH SOME SECTIONS IN THE SOUTHERN PORTION OF THE COUNTY AS LOW AS 1,600 FEET. HENDERSON COUNTY ENJOYS THE ADVANTAGES OF A MOUNTAIN CLIMATE, WHILE AT THE SAME TIME BEING PROTECTED BY HIGH MOUNTAIN RANGES FROM SOME OF THE WINTER STORMS. THE BARRIER FORMED BY THE GREAT SMOKY MOUNTAINS TENDS TO HOLD BACK THE FLOW OF COLD AIR FROM WINTER STORMS MOVING SOUTHWARD FROM CANADA; THE WEAKER OF THESE

STORMS ARE TURNED ASIDE AND PREVENTED FROM REACHING THE HENDERSON COUNTY AREA, WHILE THE STRONGER STORMS ARE MODIFIED AND SLOWED WHEN PASSING OVER THE HIGHER MOUNTAINS. THE TEMPERATURE DROPS BELOW FREEZING ON MORE THAN HALF THE NIGHTS IN WINTER, BUT EVEN IN THE COLDEST WEATHER THE TEMPERATURE WILL USUALLY RISE ABOVE FREEZING IN THE AFTERNOON. ZERO WEATHER IS EXTREMELY RARE, OCCURRING ON AN AVERAGE ONLY ONCE OR TWICE IN 10 YEARS.

THE AVERAGE LENGTH OF FROST-FREE GROWING SEASON IS ABOUT 6 MONTH. THE AVERAGE DATE OF THE LAST OCCURRENCE IN SPRING OF A TEMPERATURE AS LOW AS 32° F. IN HENDERSON COUNTY IS APRIL 22; OF 28° F. AROUND APRIL 6; AND 20° F. AROUND MARCH 3. THE AVERAGE DATE OF THE FIRST 32° F. WEATHER IS OCTOBER 19; OF 28° F., OCTOBER 29; AND 20° F., NOVEMBER 24.

SUMMER WEATHER IS USUALLY COOLER BY 5°, BOTH DAY AND NIGHT, THAN MOST COASTAL PLAIN AND PIEDMONT COUNTIES. NINETY DEGREE WEATHER OCCURS ONLY ABOUT ONCE A WEEK IN SUMMER. TEMPERATURES AS HIGH AS 100° F. ARE ALMOST UNKNOWN, HAVING OCCURRED ONLY A FEW TIMES IN THE PAST 70 YEARS.

RAINFALL IN HENDERSON COUNTY IS PELTIFUL AND WELL DISTRIBUTED THROUGHOUT THE YEAR. THE HEAVIEST AMOUNTS FALL, ON AN AVERAGE, DURING THE SUMMER MONTHS. THE ONLY 2 MONTHS HAVING AN AVERAGE OF LESS THAN 4 INCHES OF RAIN ARE OCTOBER AND NOVEMBER. HENDERSON COUNTY, LOCATED IN THE GENERAL AREA OF NORTH CAROLINA THAT HAS THE HEAVIEST AMOUNTS OF RAINFALL, IS SHELTERED FROM HEAVY RAIN BY MOUNTAIN RANGES ON EITHER SIDE. AVERAGE ANNUAL PRECIPITATION IS 56 INCHES. THE HIGHEST



MONTHLY AVERAGE IS 5.4 INCHES IN MARCH AND THE LOWEST MONTHLY AVERAGE IS 3.6 INCHES IN NOVEMBER.

HENDERSON COUNTY RECEIVES SOME SNOW ALMOST EVERY WINTER. THE COUNTY RECEIVES AN AVERAGE OF 10 INCHES OF SNOW PER YEAR. THIS IS ONLY A FRACTION OF THE AMOUNT OF SNOW WHICH FALLS ON THE HIGHER PEAKS TO THE NORTHWEST.

WESTERLY WINDS PREVAIL IN THE SUMMER AND NORTHWESTERLIES IN THE OTHER SEASONS. WIND SPEEDS AVERAGE 8 TO 10 MILES PER HOUR, RUNNING HIGHER IN EARLY AFTERNOON AND LOWER IN THE EARLY MORNING HOURS BEFORE DAWN. THE HIGHEST WINDS IN THE COUNTY ARE THOSE ACCOMPANYING SUMMER THUNDERSTORMS. THE MOUNTAIN BARRIERS DIMINISH THE STRENGTH OF WINTER WIND STORMS CONSIDERABLY.

THE AVERAGE ANNUAL TEMPERATURE FOR HENDERSON COUNTY IS 56.2<sup>0</sup> F.

### SOILS

HENDERSON COUNTY HAS 5 PRINCIPAL SOIL TYPES. SIXTY-THREE PERCENT (63%) OF THE COUNTY HAS SOILS FROM THE EDNEYVILLE-ASHE-EVARD ASSOCIATION. THESE SOILS ARE GENERALLY LOCATED ON THE STEEP TERRAIN AND IN THE MOUNTAINOUS AREAS. THE CHESTER-HAYESVILLE-BRADDOCK ASSOCIATION DOMINATES THE LOWER, FLATTER AREAS OF HENDERSON COUNTY AND IS GENERALLY WELL-SUITED FOR A VARIETY OF USES INCLUDING SEPTIC TANK INSTALLATION.

MOST OF THE RESIDENTIALLY DEVELOPABLE LAND IN AND AROUND HENDERSONVILLE HAS EITHER HAYESVILLE LOAM OR A FINE SAND LOAM CALLED TATE. THESE SOILS GENERALLY HAVE BEDROCK AT A DEPTH OF 4 OR MORE FEET AND GOUNDWATER AT 6 FEET. THESE SOILS ARE

SUITABLE FOR SEPTIC TANKS; HOWEVER, WHEN THE GROUND SLOPE RANGES FROM 15% TO 25% SOME LIMITATION FOR SEPTIC TANK USE MAY BE ENCOUNTERED, DEPENDING, OF COURSE, ON THE LOCATION.

GENERALLY SOILS IN HENDERSON COUNTY ARE CLASSIFIED BY THE SOIL SCIENTIST AS "PROVISIONAL" FOR SEPTIC TANK USE. THIS MEANS THAT LAND IN HENDERSON COUNTY WITH A GROUND SLOPE OF LESS THAN 15% WILL GENERALLY BE SATISFACTORY FOR SEPTIC TANKS. LAND THAT IS LOW, SUCH AS FLOOD PLAINS OR CREEK BEDS, OR LAND THAT HAS A SLOPE GREATER THAN 15% WILL REQUIRE ADDITIONAL TESTING BEFORE SEPTIC TANKS ARE INSTALLED. IN MOST LARGE DEVELOPMENTS SEWER SYSTEMS SHOULD BE CONSIDERED AS AN ALTERNATIVE TO SEPTIC TANKS. SOILS TO THE WEST AND NORTHWEST OF HENDERSONVILLE ARE OF THE CHESTER-HAYESVILLE-BRADDOCK ASSOCIATION AND ARE GENERALLY ACCEPTABLE FOR SEPTIC TANKS. THE AREAS TO THE SOUTH OF HENDERSONVILLE HAVE A MIXTURE OF SOILS AND WILL DEVELOP BOTH ON SEWER SYSTEMS (PRIVATE AND PUBLIC) AND SEPTIC TANKS, DEPENDING ON SOIL CONDITIONS, DENSITY OF DEVELOPMENT AND SLOPE LIMITATIONS. DETAILED SOIL INFORMATION MAY BE OBTAINED FROM THE HENDERSON COUNTY SOIL CONSERVATION SERVICE.

#### GEOLOGY AND GROUNDWATER

THE HENDERSON GNEISS IS THE PRINCIPAL GEOLOGIC UNIT IN HENDERSON COUNTY WITH SOME GNEISS ROCK AND GRANITE GNEISS SCATTERED THROUGHOUT.

THE HENDERSON GNEISS IS MEDIUM GRAY TO DARK GRAY IN COLOR AND WEATHERS TO A LIGHT GRAY OR YELLOWISH TO REDDISH



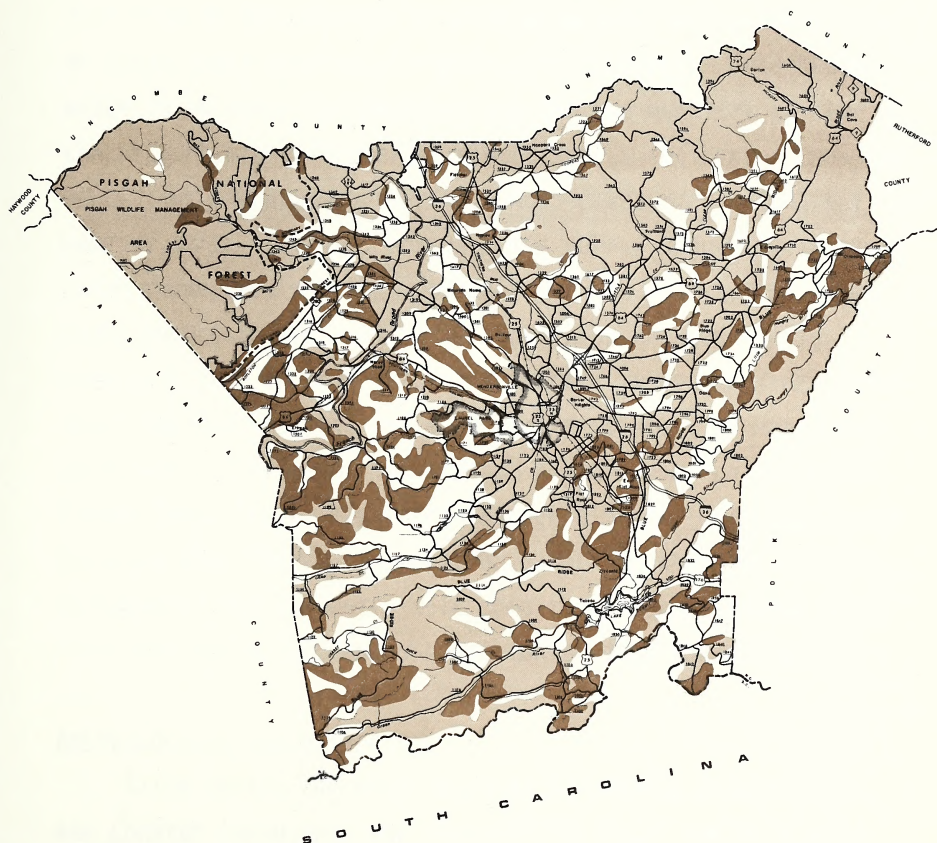
REGION 8 - NORTH CAROLINA  
HENDERSON CO.

**SOIL  
SUITABILITY**

- SUITABLE
- LIMITED
- SEVERELY LIMITED



LAND-OF-SH1 REGIONAL COUNCIL  
1987 1988 1989 1990 1991 1992



0 1 2 3 4 5 6 7 8 9 10



THE INFORMATION ON THIS MAP WAS OBTAINED FROM THE LAND-OF-SH1 REGIONAL COUNCIL AND IS SUBJECT TO CHANGE WITHOUT NOTICE. THE USER ASSUMES ALL LIABILITY FOR THE ACCURACY AND COMPLETENESS OF THE DATA.



BROWN. IT CONSISTS OF QUARTZ AND FELDSPAR WITH SMALLER AMOUNTS OF BIOTITE AND MUSCOVITE. WELLS DRILLED IN HENDERSON GNEISS GENERALLY YIELD MORE WATER THAN THOSE DRILLED IN OTHER ROCK TYPES.

THE GROUNDWATER IN HENDERSON COUNTY IS ESSENTIALLY A SODIUM-BICARBONATE WATER CONTAINING SOME CALCIUM AND MAGNESIUM. THIS TYPE OF GROUNDWATER IS ASSOCIATED WITH THE DECOMPOSITION OF ROCKS CONTAINING SODIC PLAGIOCLASE FELDSPAR. THIS GROUNDWATER IS SUITABLE FOR DOMESTIC USE AND THE QUANTITY IS GENERALLY SUFFICIENT TO SUPPORT SINGLE FAMILY RESIDENCES FROM ONE WELL. THE GROUNDWATER SUPPLY IN MOST CASES WILL ADEQUATELY SUPPORT SMALL INDUSTRY; HOWEVER, THE SUPPLY SHOULD BE INVESTIGATED THOROUGHLY AND WHEN POSSIBLE THE USE OF EXISTING WATER LINES SHOULD BE ENCOURAGED. THE DEPTH OF GROUNDWATER IS USUALLY 6 FEET OR MORE BELOW THE SURFACE IN WELL DRAINED AREAS ABOVE THE FLOODPLAIN. THE GROUNDWATER IS HIGH, IN MOST CASES LESS THAN 6 FEET BELOW THE SURFACE ALONG FLOOD PLAINS OF THE FRENCH BROAD RIVER, MUD CREEK, HOOPER'S CREEK, CANE CREEK, BAT FORK AND KING CREEK. IN ADDITION, ISOLATED AREAS OF HIGH GROUNDWATER AND SATURATED SOIL CONDITIONS OCCUR BECAUSE OF THIN SOIL MANTELS COVERING CONSOLIDATED ROCK FORMATIONS.

#### ARCHEOLOGICAL AND HISTORICAL

SITES HAVING ARCHEOLOGICAL AND HISTORICAL SIGNIFICANCE ARE LOCATED THROUGHOUT THE COUNTY. THE FOLLOWING IS A BRIEF DISCUSSION OF BOTH ARCHEOLOGICAL AND HISTORICAL AREAS IN HENDERSON COUNTY.

## ARCHEOLOGICAL SITES

THE HENDERSONVILLE AREA HAS SEVERAL SIGNIFICANT ARCHEOLOGICAL SITES. THE FRENCH BROAD RIVER VALLEY IS THE AREA OF MAJOR CONCERN SINCE IT WAS HEAVILY POPULATED DURING PRE-HISTORIC TIMES.

THE FOLLOWING LIST WAS PROVIDED BY THE ARCHEOLOGICAL SECTION OF THE N. C. DEPARTMENT OF CULTURAL RESOURCES AND IS BASED ON THE FOLLOWING DEFINITIONS:

- (A) DISTURBED AREAS - AREAS WHICH HAVE BEEN PREVIOUSLY DISBURBED AND THEREFORE UNLIKELY TO HAVE ARCHEOLOGICAL SITES.
- (B) MARGINAL AREAS - UNDISTURBED AREAS WHICH ARE NOT LIKELY TO HAVE ARCHEOLOGICAL SITES, AND
- (C) IMPACT AREAS - AREAS WHICH ARE LIKELY TO HAVE ARCHEOLOGICAL SITES.

### DISTURBED AREAS

BAT FORK DRAINAGE DITCH

TOXAWAY CREEK ALONG THE SOUTHERN  
RAILWAY

MUD CREEK UPSTREAM FROM THE EXISTING  
WASTE TREATMENT PLANT

### MARGINAL AREAS

BRITTON CREEK

CLEAR CREEK

DEVIL'S FORK

## KING'S CREEK

### IMPACT AREAS

FRENCH BROAD RIVER

MILL POND CREEK

MUD CREEK DOWNSTREAM FROM THE  
EXISTING TREATMENT PLANT

### HISTORIC SITES

HENDERSON COUNTY CONTAINS MANY SITES WHICH ARE OF HISTORICAL SIGNIFICANCE. THE ONLY SITE WHICH IS PRESENTLY LISTED AS A NATIONAL HISTORIC LANDMARK IS THE CARL SANDBURG HOME, CONNEMARA. THE REMAINDER OF THE SITES HAVE BEEN RECOGNIZED BY THE NORTH CAROLINA DIVISION OF ARCHIVES AND HISTORY, ALTHOUGH THIS LIST IS NOT TO BE CONSIDERED A COMPLETE INVENTORY. MOST OF THESE SITES ARE IN AN AREA KNOWN AS THE FLAT ROCK HISTORIC DISTRICT. THIS AREA WAS DEVELOPED DURING THE 1800'S BY WEALTHY AND PROMINENT PERSONS, MANY FROM CHARLESTON, S. C. THE HOMES, ESTATES AND SIGNIFICANT HISTORIC SITES, WITH A BRIEF DESCRIPTION, ARE LISTED BELOW. THE NUMBERS COINCIDE WITH THE NUMBERS ON THE MAP OF HISTORIC SITES AT THE END OF THE CHAPTER.

1. MOUNTAIN LODGE IS THE FIRST FLAT ROCK HOUSE BUILT BY THE CHARLESTON RESIDENTS. IT WAS BUILT ON A 300 ACRE TRACT PURCHASED BY CHARLES BARING, IN HIS WIFE'S NAME. BARING WAS A WEALTHY RICE PLANTER IN THE CHARLESTON AREA.



CONSTRUCTION WAS BEGUN IN 1827. THE HOUSE AND GROUNDS WERE PATTERNED AFTER ENGLISH ESTATES. INCLUDED IN THE DEVELOPMENT WERE THE MANOR HOUSE, FORMAL GARDENS, A PORTER'S LODGE AT THE ENTRANCE GATE, A FENCED DEER PARK AND A PRIVATE CHAPEL WITH A PARSONAGE. THE MAIN HOUSE HAS BEEN REMODELED AND ALTERED CONSIDERABLY FROM ITS ORIGINAL STATE. A 2 STORY COLUMNED PORCH SURROUNDING MOST OF THE HOUSE AND A LARGE WING ARE RECENT ADDITIONS. THE ENTRANCE, MANTELS AND STAIRCASE ARE INTERESTING ITEMS OF THE ORIGINAL CONSTRUCTION. AT MRS. BARING'S DEATH IN 1845, THE PROPERTY, WHICH HAD BEEN INCREASED TO MORE THAN 3,000 ACRES, PASSED TO CHARLES BARING. IN 1853 BARING SOLD THE PROPERTY TO EDWARD L. TRENHOLM.

2. ARGYLE WAS THE HOME OF JUDGE MITCHELL KING, A PROMINENT FIGURE IN THE HISTORY OF HENDERSON COUNTY, AND IT HAS REMAINED IN THE KING FAMILY TO THE PRESENT DAY. JUDGE KING, A WELL-KNOWN LAWYER AND JUDGE IN CHARLESTON, PURCHASED 1,390 ACRES IN FLAT ROCK FROM JOHN DAVIS IN 1830. THE HOUSE, BUILT BY DAVIS AND ENLARGED BY JUDGE KING, IS A 2½ STORY 5 BAY HOUSE FLANKED BY LARGE 2 STORY WINGS. THERE IS A 2 STORY PORCH ACROSS THE ENTIRE FRONT OF THE HOUSE. THE FIRST FLOOR HAS BEEN EXTENSIVELY ALTERED, BUT THE SECOND FLOOR OF THE MAIN PART OF THE HOUSE HAS BEEN ALTERED VERY LITTLE.

3. THE ST. JOHN-IN-THE-WILDERNESS CONGREGATION WAS ESTABLISHED IN AUGUST, 1836, WHEN CHARLES AND SUSAN BARING DEEDED THEIR PRIVATE CHAPEL AND ITS GROUNDS TO THE EPISCOPAL CHURCH.

THE BARINGS HAD CONSTRUCTED THE CHAPEL IN 1833 AND IN 1852 IT WAS ENLARGED TO NEARLY ITS PRESENT FORM. ST. JOHN IS THE OLDEST CHURCH IN THE EPISCOPAL DIOCESE OF WESTERN NORTH CAROLINA.

3A. THE ST. JOHN-IN-THE-WILDERNESS RECTORY WAS BUILT IN 1853-54. RECORDS SIGNED BY THE REV. CHARLES COTESWORTH PINCKNEY VERIFY THE CONSTRUCTION DATES AND NAMES OF THE BUILDING COMMITTEE MEMBERS. THE RECTORY IS A 1½ STORY T-SHAPED STRUCTURE MADE OF STONE. THE ROOF IS HIGH PITCHED AND CONTAINS A FINISHED ATTIC.

4. BEAUMONT. THE ORIGINAL 257 ACRE TRACT OF BEAUMONT WAS PURCHASED IN 1839 BY ANDREW JOHNSTONE, A RICE PLANTER FROM GEORGETOWN, SOUTH CAROLINA. JOHNSTONE BUILT A 2½ STORY STONE HOUSE WHICH HAS BEEN EXTENSIVELY REMODELED AND CHANGED INSIDE AND OUT OVER THE YEARS. SEVERAL OF THE ORIGINAL ARCHITECTURAL FEATURES DO REMAIN UNALTERED. ANDREW JOHNSTONE WAS KILLED BY "BUSHWHACKERS" AT BEAUMONT IN JUNE OF 1864.

5. TALL TREES. THE PROPERTY ON WHICH TALL TREES STANDS WAS GIVEN TO ARTHUR M. HUGER BY HIS FATHER-IN-LAW, JUDGE MITCHELL KING. ON THE 80 ACRE TRACT HUGER BUILT A 2 STORY, 5 BAY FRAME HOUSE. FOLLOWING HUGER'S DEATH, TALL TREES WAS OWNED BY GOVERNOR THOMAS BENNETT OF SOUTH CAROLINA.

6. MANY PINES WAS CONSTRUCTED IN 1847 BY JAMES PRINGLE.

IT IS A 2½ STORY FRAME HOUSE. THERE ARE SEVERAL DISTINCTIVE FEATURES BOTH INSIDE AND OUT. THE HOUSE AND SEVERAL ACRES HAVE BEEN PRESERVED WITH THE BALANCE OF THE PROPERTY DIVIDED INTO HILLANDALE SUBDIVISION.

7. CHANTELOUPE WAS BUILT IN 1841 BY COUNT JOSEPH MARIE GABIREL ST. XAVIER DE CHOISUEL. IT IS A LARGE, RAMBLING 2½ STORY HOUSE OF UNCOURSED STONE, BUILT ON A HILL WITH TERRACED GARDENS ABOVE AND BELOW THE HOUSE. TWO LARGE WINGS, EACH LARGER THAN THE ORIGINAL STRUCTURE, APPEAR TO HAVE BEEN ADDED AFTER 1900. DE CHOISUEL SOLD THE PROPERTY IN JUNE OF 1858 TO DAVID URQUHARDON.

8. THE OLD POST OFFICE IS LOCATED NEAR THE CENTER OF FLAT ROCK. IT IS A SMALL, 2 STORY FRAME BUILDING SITTING VERY CLOSE TO THE HIGHWAY. IT WAS BUILT ABOUT 1846 BY PETER STRADLEY, A BLACKSMITH WHO WAS APPOINTED POSTMASTER IN 1845. THE BUILDING SERVED AS POST OFFICE UNTIL 1877 AND FOR THREE OTHER PERIODS BETWEEN 1879 AND 1965.

9. TENERIFFE WAS BUILT ABOUT 1850 BY DR. J. G. SCHOOLBREAD OF CHARLESTON. IT WAS NAMED AFTER ONE OF THE CANARY ISLANDS. IN 1883 THE ESTATE WAS SOLD TO CHARLES ALBERT HILL, AN ENGLISHMAN WHO WAS A WEALTHY COTTON BROKER FROM CHARLESTON. THE 2½ STORY HOUSE WAS REMODELED IN 1903 BY HUGH DELACY VINCENT, A MEMBER OF HILL'S BROKERAGE, INTO A TUDOR REVIVAL HOUSE. THE TUDOR STYLE WAS VERY POPULAR AT THAT TIME AND

SEVERAL HOMES IN THE AREA WERE OVERBUILT IN THAT STYLE.

10. RUTLEDGE COTTAGE WAS BUILT BY DR. MITCHELL CAMPBELL KING, SON OF JUDGE MITCHELL KING, WHO BEGAN HIS MEDICAL PRACTICE IN HENDERSON COUNTY IN 1840. KNOWN ORIGINALLY AS "THE COTTAGE," IT WAS BUILT IN THE STYLE OF GERMAN COUNTRY HOUSES OF THE PERIOD. NO DOUBT THE FACT THAT DR. KING STUDIED AT THE UNIVERSITY OF GOETTINGER IN GERMANY INFLUENCED HIS CHOICE OF ARCHITECTURAL STYLES. THE GROUNDS ON WHICH THE COTTAGE WAS BUILT BELONGED TO DR. KING'S FATHER UNTIL 1856 WHEN JUDGE KING DEEDED 293 ACRES TO HIS SON. IN 1857 DR. KING MOVED FROM THE COTTAGE TO GLENROY, A LARGE HOME HE HAD JUST COMPLETED. IN THE FALL OF 1857 THE COTTAGE WAS PURCHASED BY ELIZABETH PINCKNEY RUTLEDGE.

11. WOODFIELD INN. IN 1847 SEVERAL LANDOWNERS IN FLAT ROCK PURCHASED 400 ACRES IN THE CENTER OF THE COMMUNITY TO BUILD AN INN OR TAVERN ON THE SALUDA ROAD. THE INN WAS 3 STORIES, BUILT BY HENRY TUDOR FARMER, AND COMPLETED IN 1852. IN 1853 HE PURCHASED THE PROPERTY AND OPERATED IT UNDER THE NAME FARMER HOTEL UNTIL HIS DEATH IN 1883. A LATER OWNER, MRS. ANNIE MARTIN, CHANGED THE NAME TO WOODFIELD INN.

12. THE TRENHOLM-RHETT HOUSE WAS BUILT IN 1854 BY CHARLES BARING JUST BEFORE HIS DEATH. IT WAS SUBSEQUENTLY PURCHASED BY GEORGE TRENHOLM, SECOND SECRETARY OF THE CONFEDERATE TREASURY, AND IN 1876 IT WAS ACQUIRED BY HENRIETTA AIKEN RHETT AND



HER HUSBAND, ANDREW BURNETT RHETT. MRS. RHETT'S FATHER WAS GOVERNOR OF SOUTH CAROLINA. THE HOUSE, A 2 STORY STRUCTURE WITH A CENTRAL ENTRANCE, WAS LATER EXPANDED INTO A U SHAPE. IT IS CURRENTLY OWNED BY OUR LADY OF THE HILLS CAMP AND HAS FALLEN INTO DISREPAIR.

13. KENMURE (FORMERLY CALLED GLENROY). DR. MITCHELL CAMPBELL KING COMPLETED GLENROY IN 1857. FOLLOWING HIS DEATH, THE HOME BELONGED TO HIS DAUGHTER UNTIL 1903. IN 1920 THE PROPERTY WAS PURCHASED BY W. GORDON McCABE WHO CHANGED THE NAME TO KENMURE. KENMURE IS STILL IN THE McCABE FAMILY AND TODAY IS A WELL-MAINTAINED WORKING FARM.

14. VINCENNES (ELLIOTT HOUSE) WAS BUILT IN 1877 BY COL. WILLIAM ELLIOTT, U. S. SENATOR FROM BEAUFORT, S. C., AS A SUMMER HOME. IT WAS KNOWN THEN AS THE ELLIOTT HOUSE. THE PRESENT OWNER, WILLIAM E. HARTMAN, RENAMED THE HOUSE VINCENNES WHEN HE RESTORED IT YEARS LATER.

15. THE SALLIE PARKER HOUSE WAS BUILT IN THE LATE 1800'S AND IS ONE OF THE MOST SIMPLISTIC IN STYLE OF THE FLAT ROCK SUMMER HOMES.

16. ENCHANTMENT WAS BUILT IN 1887 BY DR. ALLORD MEMMINGER. THE HOUSE REFLECTS THE GERMAN COUNTRY STYLE DR. MEMMINGER CAME TO KNOW WHILE STUDYING IN GERMANY. DR. MEMMINGER'S NIECE AND HER HUSBAND, ROBERT E. LEE, III, LIVED IN THIS HOUSE FOR MANY



YEARS. FOLLOWING HER DEATH, THE PROPERTY WAS SOLD TO THE OLD MILL APARTMENTS AND MOTEL, DIVIDED INTO LOTS AND SOLD.

17. THE LOWNDES PLACE WAS BUILT IN 1885 BY RICHARD I. LOWNDES AND WAS KNOWN AS "THE ROCK" BECAUSE OF ITS NEARNESS TO THE ROCK OUTCROPPING FROM WHICH FLAT ROCK DERIVES ITS NAME. IN 1957 THE VAGABOND SCHOOL OF DRAMA, INC., ACQUIRED THE PROPERTY AND CURRENTLY USES THE HOUSE FOR OFFICES AND DORMITORY ROOMS FOR STUDENTS OF THE FLAT ROCK SCHOOL OF DRAMA.

18. BONCLARKEN OR HEIDLEBERG WAS BUILT IN THREE STAGES, BEGINNING IN 1885, BY DR. ARTHUR GUERARD AND IS PATTERNED AFTER A EUROPEAN CHALET. AN ADDITION WAS CONSTRUCTED IN 1892 AND ANOTHER IN 1902. HAVING ENCOUNTERED FINANCIAL PROBLEMS, DR. GUERARD OPERATED HEIDELBERG AS A HOTEL, THEN LATER AS A SANITARIUM. STILL EXPERIENCING FINANCIAL PROBLEMS, DR. GUERARD WAS FORCED TO SELL. IN 1921 THE ASSOCIATED REFORMED PRESBYTERIAN CHURCH BOUGHT THE PROPERTY FOR A SUMMER CONFERENCE CENTER AND RENAMED IT BONCLARKEN.

19. SALUDA COTTAGES IS THE MOST ARCHITECTURALLY AMBITIOUS HOUSE IN FLAT ROCK, VERY HANDSOME AND ORNATE BOTH INSIDE AND OUT. THE NAME SALUDA COTTAGES REFERS TO AN ESTATE MADE UP OF A GROUP OF COTTAGES PREDATING THE HOUSE. THEY WERE NAMED FOR THE SALUDA ROAD ON WHICH THE PROPERTY IS LOCATED. COUNT DE CHOISUEL BOUGHT THE PROPERTY IN 1836 FROM CHARLES BARING AND USED IT AS A SUMMER HOME UNTIL 1841. AFTER CHANGING HANDS

SEVERAL TIMES THE ESTATE WAS PURCHASED BY RUDOLPH SEIGLING OF CHARLESTON WHO MADE EXTENSIVE ALTERATIONS, TURNING THE HOUSE INTO THE FLAMBOYANT EXAMPLE OF VICTORIAN ARCHITECTURE IT IS TODAY. SEIGLING CALLED THE HOUSE SANS SOUCI; HOWEVER, THE PRESENT OWNERS, MR. AND MRS. CAMPBELL BOYD, HAVE RETURNED THE NAME TO SALUDA COTTAGES.

20. TRANQUILITY WAS BUILT IN 1890 BY EDWARD MEMMINGER. MR. MEMMINGER WAS EXTREMELY INTERESTED IN BOTANY AND HE COLLECTED MANY RARE PLANTS IN HIS LARGE GARDEN AT TRANQUILITY. AFTER HIS DEATH, THE COLLECTION WAS SENT TO THE UNIVERSITY OF NORTH CAROLINA. THE HOUSE IS 2½ STORIES IN THE SHAPE OF A T WITH A 3 STORY STAIR TOWER AT THE NORTH ANGLE OF THE T. THERE ARE 2 STORY PORCHES ALONG 2 SIDES OF THE HOUSE AND A VARIETY OF INTERESTING ORNAMENTATION.

21. RHUE HOUSE WAS BUILT IN THE LATE 19TH CENTURY. IT IS A LARGE 2½ STORY FRAME HOUSE FEATURING IRREGULAR GABLES AND A ONE STORY PORCH ACROSS THE FRONT.

22. FLAT ROCK MILL PROPERTY WAS ACQUIRED LATE IN 1830 BY PETER SUMMEY WHO OPERATED THE MILL UNTIL 1850. BEFORE THE TURN OF THE CENTURY THERE WERE SEVERAL OTHER OWNERS, THEN WILLIAM JORDAN PURCHASED THE PROPERTY AND INSTALLED THE OVER-SHOT WHEEL WHICH IS THERE TODAY.

23. PIEDMONT. THE ORIGINAL HOUSE KNOWN AS PIEDMONT,

WAS A TWO STORY BUILDING, BUILT WITH SLAVE LABOR BY THE REV. CHARLES COTESWORTH PINCKNEY OF CHARLESTON. IT WAS IN THE HANDS OF A SUCCESSION OF OWNERS UNTIL IT BURNED IN 1949. AT THAT TIME IT BELONGED TO H. I. MIDDLETON, A PRESIDENT OF THE UNIVERSITY OF SOUTH CAROLINA, WHOSE EXTENSIVE LIBRARY WAS HOUSED THERE. THE HOUSE HAS BEEN REBUILT ON THE SAME FOUNDATION AND MOST OF THE BOOKS MIDDLETON WAS ABLE TO SAVE HAVE BEEN RETURNED TO PIEDMONT.

24. CONNEMARA WAS ORIGINALLY KNOWN AS ROCK HILL AND WAS BUILT IN 1838-39 BY CHRISTOPHER G. MEMMINGER ON LAND PURCHASED FROM CHARLES BARING. AT MEMMINGER'S DEATH IN 1888, THE PROPERTY CAME INTO THE HANDS OF CAPTAIN ELLISON ADGER SMYTH, FOUNDER OF BALFOUR MILL (BERKELEY). HE CHANGED THE NAME TO CONNEMARA. THE PROPERTY WAS THEN SOLD IN 1946 TO CARL SANDBURG WHO LIVED THERE UNTIL HIS DEATH IN 1967. BECAUSE OF THE ASSOCIATION WITH CARL SANDBURG, CONNEMARA WAS DESIGNATED A NATIONAL HISTORIC SITE.

25. SKYLAND HOSIERY COMPANY AT FLAT ROCK (LATER KNOWN AS CHIPMAN-LACROSSE MILL) MANUFACTURED SILK HOSIERY IN THE EARLY 1900'S FOR CHARLES CHIPMAN SONS COMPANY.

26. BROOKLANDS, BUILT BY EDMUND MOLYNEAUX ON LANDS BOUGHT FROM EDMONDSTONS, JOHN BAXTER AND OTHERS, WAS LAID OUT IN THE PATTERN OF AN ENGLISH COUNTRY ESTATE. BUNCOMBE TURNPIKE CROSSED A PORTION OF THE PROPERTY. AFTER THE DEATH OF MOLYNEAUX

THE PROPERTY WAS PURCHASED BY MAJOR THEODORE BARKER AS A SUMMER RESIDENCE. WHEN BARKER DIED IN 1917, THE LAND WAS DIVIDED AND SOLD.

27. THE FRENCH BROAD BAPTIST CHURCH WAS ORGANIZED IN 1789. IT IS THE FIRST CHURCH OF ANY DENOMINATION ORGANIZED WEST OF THE BLUE RIDGE MOUNTAINS. THE EARLIEST RECORDS WERE DESTROYED BY FIRE. IN 1792 THERE ARE RECORDS SHOWING THAT THE FRENCH BROAD BAPTIST CHURCH WAS ADMITTED TO THE BETHEL ASSOCIATION OF UPPER SOUTH CAROLINA IN THAT YEAR. THE MINISTER AT THAT TIME WAS RICHARD NEWPORT AND EIGHTEEN MEMBERS WERE REPORTED. IN 1800 THE CHURCH WAS DISMISSED FROM THAT ASSOCIATION TO BECOME ONE OF A NEW GROUP BEING FORMED, THE BROAD RIVER ASSOCIATION. THIS ASSOCIATION HELD ITS ANNUAL SESSION IN 1805 AT THE FRENCH BROAD BAPTIST CHURCH, AT THE ORIGINAL SITE ON THE BANK OF THE OLD ROAD FROM SOUTH CAROLINA NEAR THE FRENCH BROAD RIVER.

28. THE GREEN HOUSE, LOCATED ON BUCK SHOALS ROAD NEAR THE ASHEVILLE AIRPORT, IS A 3 STORY FRAME HOUSE WHICH WAS BEGUN IN 1891 BY THE LATE DR. ROBERT SHARP WHO WAS THEN PRESIDENT OF TULANE UNIVERSITY, ON LAND PURCHASED FROM G. R. WESTFELDT. MRS. GEORGE WESTFELDT PURCHASED THE PROPERTY IN 1909 AND CONSTRUCTED THE PRESENT HOUSE. MRS. WESTFELDT'S DAUGHTER, MRS. FRANCES WESTFELDT FITZPATRICK, IS THE CURRENT OWNER OF THE HOUSE. THE POET SIDNEY LANIER VISITED THE WESTFELDT HOME FREQUENTLY. IN APRIL, 1976, THE GREEN HOUSE WAS LISTED IN THE NORTH CAROLINA PLAN FOR HISTORIC PRESERVATION.

29. DUNROY WAS BUILT IN 1850 AT FLAT ROCK BY DAVID WILLIAMS OF CAMDEN, SOUTH CAROLINA. MAJOR GENERAL CAMPBELL KING, GRANDSON OF JUDGE MITCHELL KING, BOUGHT DUNROY WHEN HE RETIRED IN 1933, AND HIS SON, DR. DUNCAN INGRAHM CAMPBELL KING IS THE CURRENT OWNER. THE ARCHITECTURAL STYLE OF THE 1½ STORY COTTAGE IS GOTHIC; HOWEVER, THE HOUSE HAS BEEN EXTENSIVELY REMODELED. HERE IS AN INTERESTING GREEK REVIVAL STAIR AND AN ADAM-STYLE MANTLE.

### VEGETATION

THE LISTING OF SIGNIFICANT TREE AND PLANT SPECIES IN HENDERSON COUNTY WAS TAKEN FROM PUBLICATIONS AND REPORTS FURNISHED BY THE NORTH CAROLINA DEPARTMENT OF NATURAL AND ECONOMIC RESOURCES. THE TYPES OF FOREST COVER LISTED BELOW ARE COMMON TO HENDERSON COUNTY AND ARE NOT CONSIDERED ENVIRONMENTALLY SENSITIVE OR ENDANGERED.

WHITE OAK	WHITE PINE
POST OAK	PITCH PINE
CHESTNUT OAK	YELLOW PINE
BLACK OAK	HEMLOCK
RED OAK	DOGWOOD
WHITE HICKORY	WITCH HAZEL
TULIP POPLAR	SUMACH
RED MAPLE	RHODODENDRON
BLACK GUM	MOUNTAIN LAUREL
PERSIMMON	BLACK ALDER



THE FOLLOWING ARE ENDANGERED PLANTS KNOWN TO EXIST IN  
HENDERSON COUNTY:

<u>SPECIES</u>	<u>RANGE</u>	<u>HABITAT</u>	<u>COMMENTS</u>
SAGITTAIEA	HENDERSON AND BUNCOMBE COUNTIES	SWAMPS AND BOGS	VERY RARE, ENDANGERED
ISOTRAI	HENDERSON, HAR-	WOODED	RARE
MEDEOLOIDES	NET AND SURRY COUNTIES	SLOPES ALONG STREAM BANKS	

(FURNISHED BY THE NORTH CAROLINA DEPARTMENT OF NATURAL AND  
ECONOMIC RESOURCES, RALEIGH, N. C.)

FISH

THE FOLLOWING LIST OF FISH COMMON TO HENDERSON COUNTY  
WAS FURNISHED BY THE NORTH CAROLINA WILDLIFE RESOURCE  
COMMISSION:

LARGE MOUTH BASS	MUSKELLUNGE
ROCK BASS	GOLDEN SHINER
BLUEGILL	WARPAINT SHINER
BROWN BULLHEAD	HOG SUCKOR
BULLHEAD	REDHORSE SUCKOR
CARP	WHITE SUCKOR
CHANNEL CATFISH	REDBREAST SUNFISH
CHEEK CHUB	BROWN TROUT
RIVER CHUB (HORNEY HEAD)	WARMOUTH OR
BROOK LAMPREY	MUD SUNFISH

THE NATURE OF THE STREAM AND THE AMOUNT OF POLLUTANTS DISCHARGED IN A STREAM AFFECT THE FISH THAT WILL INHABIT THE STREAM. UNPOLLUTED STREAMS OF MODERATE SIZE CONTAIN WARM WATER FISH SUCH AS BASS, CATFISH AND SUNFISH. TROUT EXIST IN COOLER STREAMS SUCH AS MILLS RIVER, WHILE MANY OF THE SMALL TRIBUTARIES PROVIDE SPAWNING AREAS FOR TROUT.

THERE ARE NO KNOWN ENDANGERED SPECIES OF FISH IN HENDERSON COUNTY ACCORDING TO THE ENDANGERED PLANTS AND ANIMAL SPECIES LIST PROVIDED BY THE WILDLIFE RESOURCES COMMISSION OF NORTH CAROLINA.

#### ANIMALS

THE ANIMAL POPULATION IS TYPICAL OF A RURAL AREA WITH MIXED HARDWOOD AND PINE FORESTS. THE FOLLOWING LIST WAS PROVIDED BY THE WILDLIFE RESOURCE COMMISSION.

<u>ANIMALS</u>	RABBIT	DEER
	SQUIRREL	RACCOON
	RED FOX	MUSKRAT
	GRAY FOX	MINK
	OPOSSUM	SKUNK

#### BIRDS AND WATERFOWL

QUAIL	WOODCOCK
RUFFED GROUSE	WOOD DUCK
MOURNING DOVE	

RABBITS AND SQUIRRELS ARE FOUND THROUGHOUT THE COUNTY

WHILE THE FOX AND RACCOON ARE FOUND IN LESS POPULATED AREAS. MUSKRAT IS THE PRINCIPAL FUR BEARER, WITH MINK FOUND IN LESSER NUMBERS.

THE WOOD DUCK IS THE MOST ABUNDANT SPECIES OF WATER FOWL. ITS HABITAT AREA IS ALONG THE FRENCH BROAD RIVER AND ITS TRIBUTARIES. A SIGNIFICANT HABITAT AREA FOR THE WOOD DUCK IS THE MARSHY SECTION ADJACENT TO MUD CREEK.

NO KNOWN ANIMAL SPECIES IN HENDERSON COUNTY IS CONSIDERED RARE OR ENDANGERED ACCORDING TO THE NORTH CAROLINA WILDLIFE RESOURCE COMMISSION.

#### SOURCES:

A. V. HANDY, CLIMATOLOGIST FOR NORTH CAROLINA, U. S. DEPARTMENT OF COMMERCE.

U. S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE.  
NORTH CAROLINA DEPARTMENT OF NATURAL AND ECONOMIC RESOURCES.  
NORTH CAROLINA WILDLIFE COMMISSION.

HENRY TRAPP, JR., U. S. GEOLOGICAL SURVEY, GEOLOGY AND GROUND-WATER RESOURCES, N. C., 1970.

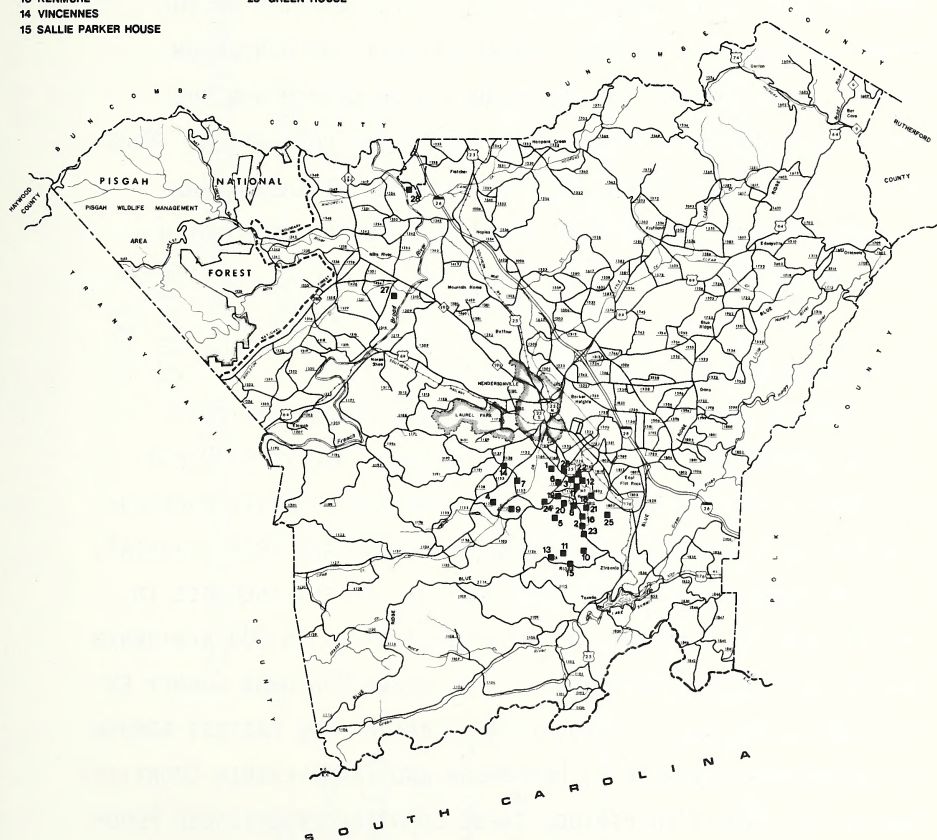
REGION 8 - NORTH CAROLINA  
HENDERSON CO.

**HISTORIC  
SITES**



LAND OF SKY REGIONAL COUNCIL  
ONE FIVEFARMS - JANUARY 1975

- |                              |                                |
|------------------------------|--------------------------------|
| 1 MOUNTAIN LODGE             | 15 ENCHANTMENT                 |
| 2 ARGYLE                     | 17 LOWMEDES PLACE              |
| 3 ST. JOHN-IN-THE-WILDERNESS | 18 BONCLARKEN                  |
| 4 BEAUMONT                   | 19 SALUDA COTTAGES             |
| 5 TALL TREE                  | 20 TRANQUILITY                 |
| 6 MANY PINES                 | 21 RHUE HOUSE                  |
| 7 CHANTELOUPE                | 22 FLAT ROCK MILL              |
| 8 THE OLD POST OFFICE        | 23 PIEDMONT                    |
| 9 TENERIFFE                  | 24 CONNEMARA                   |
| 10 RUTLEDGE COTTAGE          | 25 CHIPMAN-LACROSSE MILL       |
| 11 WOODFIELD INN             | 26 BROOKLANDS                  |
| 12 TREHOLM-RHETT HOUSE       | 27 FRENCH BROAD BAPTIST CHURCH |
| 13 KENMURE                   | 28 GREEN HOUSE                 |
| 14 VINCENNES                 |                                |
| 15 SALLIE PARKER HOUSE       |                                |



THE INFORMATION ON THIS MAP WAS GATHERED BY THE LAND OF SKY REGIONAL COUNCIL IN 1975. IT IS A GENERAL MAP AND NOT A SURVEY. IT IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN GENERAL INFORMATION. THE LAND OF SKY REGIONAL COUNCIL IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS.



## CHAPTER 4

### POPULATION AND ECONOMICS

THE FIRST STEP IN DEVELOPING AND UNDERSTANDING A COUNTY'S POPULATION INVOLVES AN ANALYSIS OF THE AREA'S PAST POPULATION GROWTH ALONG WITH THE SOCIAL AND ECONOMIC CHARACTERISTICS OF THAT POPULATION. THIS CHAPTER OF THE LAND USE PLAN WILL EXAMINE CHARACTERISTICS OF HENDERSON COUNTY'S POPULATION; THE DISTRIBUTION OF GROWTH AND THE SOCIAL AND ECONOMIC CHARACTERISTICS OF THE POPULATION. MORE DETAILED INFORMATION CAN BE FOUND IN THE POPULATION AND ECONOMIC STUDY, LAND-OF-SKY REGIONAL COUNCIL, FROM WHICH THIS CHAPTER WAS TAKEN.

#### POPULATION GROWTH - THE REGION B AREA

TABLES 1 AND 2 PRESENT INFORMATION CONCERNING POPULATION LEVELS AND POPULATION GROWTH FROM 1940 TO 1970 FOR THE UNITED STATES, NORTH CAROLINA, AND THE COUNTIES COMPRISING REGION B (BUNCOMBE, MADISON, HENDERSON AND TRANSYLVANIA).

BUNCOMBE COUNTY ACCOUNTED FOR THE LARGEST INCREASE IN POPULATION, GAINING A TOTAL OF APPROXIMATELY 36,000 RESIDENTS DURING THE 1940 TO 1970 PERIOD. ALTHOUGH BUNCOMBE COUNTY EXPERIENCED THE LARGEST POPULATION INCREASE, THE FASTEST GROWTH RATES WERE EXPERIENCED BY HENDERSON AND TRANSYLVANIA COUNTIES. DURING THE 1940-1970 PERIOD, THESE COUNTIES EXPERIENCED POPULATION INCREASES OF 64.3% AND 61.0% RESPECTIVELY. THESE RATES OF GROWTH WERE HIGHER THAN THE RATE OF NORTH CAROLINA



TABLE 1  
POPULATION  
REGION B, NORTH CAROLINA, UNITED STATES: 1940-1970

AREA	1940	1950	1960	1970
BUNCOMBE	108,755	124,403	130,074	145,056
HENDERSON	26,049	30,921	36,163	42,804
MADISON	22,522	20,522	17,217	16,003
TRANSYLVANIA	12,241	15,194	16,372	19,713
REGION B	169,567	191,040	199,826	223,576
NORTH CAROLINA	3,571,623	4,061,929	4,556,155	5,082,059
UNITED STATES	131,669,275	151,325,798	179,323,175	203,211,926

SOURCE: U. S. CENSUS OF POPULATION: 1940, 1950, 1960, 1970.

TABLE 2

## POPULATION CHANGE

## REGION B, NORTH CAROLINA, UNITED STATES: 1940-1970

AREA	CHANGE 1940-1950		CHANGE 1950-1960		CHANGE 1960-1970	
	AMOUNT	PERCENT	AMOUNT	PERCENT	AMOUNT	PERCENT
BUNCOMBE	15,648	14.4	5,671	4.6	14,982	11.5
HENDERSON	4,872	18.7	5,242	17.0	6,641	18.4
MADISON	- 2,000	- 8.9	- 3,305	- 16.1	- 1,214	- 7.1
TRANSYLVANIA	2,953	24.1	1,178	7.8	3,341	20.4
REGION B	21,473	12.7	8,786	4.6	23,750	11.9
NORTH CAROLINA	490,306	13.7	494,226	12.2	525,904	11.5
UNITED STATES	19,656,523	14.9	27,997,377	18.5	23,888,751	13.3

SOURCE: LAND-OF-SKY REGIONAL COUNCIL USING U.S. CENSUS OF POPULATION 1940, 1950, 1960, 1970.

(42.2%) AND FOR THE UNITED STATES (54.0%). GROWTH RATES FOR EACH AREA ARE INDICATED IN TABLE 2.

#### POPULATION BY URBAN-RURAL CLASSIFICATION

THE DISTRIBUTION OF THE REGION B AREA POPULATION ACCORDING TO URBAN AND RURAL RESIDENCE DESIGNATIONS IS SHOWN IN TABLE 3. AS INDICATED, THE REGION'S POPULATION IN 1970 WAS STILL PREDOMINATELY RURAL WITH APPROXIMATELY 58% OF THE POPULATION CLASSIFIED AS EITHER "RURAL, NON-FARM" OR "RURAL, FARM." IN 1970, 51% OF THE REGION'S POPULATION WAS CLASSIFIED AS "RURAL, NON-FARM." FOLLOWING THE NATIONAL TREND, THE REGION'S "RURAL, FARM" POPULATION DECREASED DURING THE 1960-1970 PERIOD. THE FASTEST RATES OF DECREASE OCCURRED IN TRANSYLVANIA COUNTY WHERE THE "RURAL, FARM" POPULATION DECREASED BY APPROXIMATELY 64% FOLLOWED BY HENDERSON COUNTY WITH A DECREASE OF 51%. DURING THE SAME PERIOD, NORTH CAROLINA'S "RURAL, FARM" POPULATION DECLINED BY APPROXIMATELY 54% WHILE THE REGION'S TOTAL FARM POPULATION DECLINED BY APPROXIMATELY 36%. (SEE TABLE 3)

#### POPULATION DENSITY - REGIONAL

TABLE 4 INDICATES THE POPULATION DENSITY (THE NUMBER OF PERSONS PER SQUARE MILE AREA) FOR THE PERIOD 1940 TO 1970.

ALSO INDICATED IN TABLE 4 ARE THE CHANGES IN POPULATION DENSITY WHICH WERE EXPERIENCED BY EACH COUNTY FROM 1940 TO 1970. DURING THIS PERIOD, THE GREATEST INCREASE IN POPULATION DENSITY OCCURRED IN HENDERSON COUNTY WHICH INCREASED

DISTRIBUTION OF POPULATION, BY URBAN AND RURAL RESIDENCE DESIGNATION,  
REGION B AND NORTH CAROLINA, 1960, 1970

1960	Urban		Rural	
	Amount	PerCent	FARM*	
			Amount	PerCent
			NON-FARM	
			Amount	PerCent
Buncombe	68,592	52.7	10,151	7.8
Henderson	5,911	16.3	4,356	12.1
Madison	-	-	10,321	60.0
Transylvania	4,857	29.7	1,335	8.1
Region B	79,360	39.7	26,163	13.1
North Carolina	1,801,921	39.6	808,379	17.7
			1,945,855	42.7
<u>1970</u>				
Buncombe **	75,655	52.2	6,504	4.5
Henderson **	12,003	28.0	2,142	5.0
Madison	-	-	7,682	48.0
Transylvania **	5,243	26.6	478	2.4
Region B	92,901	41.6	16,806	7.5
North Carolina	2,285,521	45.0	374,692	7.4
			2,421,846	47.6

\* Farm population is defined as persons living in rural territory on places of 10 acres or more with farm product sales of \$50 or more; or on less than 10 acres with farm product sales of \$250 or more.

\*\* Published census data on farm and non-farm population were adjusted to be consistent with published figures for total rural population.

Source: Hammer, Siler, George Associates, using U.S. Census, 1960 and 1970 for L-O-S Regional Council.

TABLE 4

## POPULATION DENSITY, REGION B, BY COUNTY: 1940-1970

AREA	LAND AREA (SQUARE MILES)*	DENSITY (PERSONS PER SQUARE MILE)		PERCENT CHANGE 1940-1970
		1940	1970	
BUNCOMBE	644	168.9	193.1	33.3
HENDERSON	381	68.4	81.2	64.2
MADISON	454	49.6	45.2	- 29.0
TRANSYLVANIA	378	32.4	40.2	61.0
REGION B	1,857	91.3	102.9	31.9

\*THE INDICATED LAND AREA FIGURES WERE USED TO DETERMINE THE POPULATION DENSITIES FROM 1940 TO 1970 SINCE NO MAJOR LAND RECLAMATION PROJECTS OR WATER PROJECTS WHICH CONSUMED LARGE AMOUNTS OF LAND AREA WERE UNDERTAKEN DURING THE PERIOD.

SOURCE: LAND-OF-SKY REGIONAL COUNCIL USING PROFILE: NORTH CAROLINA COUNTIES, 1973.



BY APPROXIMATELY 64%. THIS INCREASE WAS CLOSELY FOLLOWED BY TRANSYLVANIA COUNTY WITH A 61% INCREASE. (SEE TABLE 4).

#### AGE CHARACTERISTICS - REGIONAL

TABLES 5 AND 6 PRESENT INFORMATION CONCERNING THE AGE STRUCTURE AND CHARACTERISTICS OF THE REGION'S POPULATION IN 1960 AND 1970. IN 1970 HENDERSON COUNTY POSSESSED THE HIGHEST MEDIAN AGE IN THE REGION WITH THE AGE LEVEL AT 32.3 YEARS.

AS INDICATED IN TABLE 6, THE REGION FOLLOWED THE NATIONAL TREND IN EXPERIENCING A SLOW GROWTH IN THE UNDER 18 AGE COHORT AND A SIZEABLE INCREASE OF THE POPULATION IN THE AGE GROUPING 65 AND OLDER.

WHILE THE U. S. POPULATION IN THIS CATEGORY INCREASED BY 14.5% DURING THE PERIOD, HENDERSON COUNTY SURPASSED THE NATIONAL FIGURE, INCREASING BY 21.0%. WHILE THE REGION EXPERIENCED INCREASES IN ALL THE AGE CATEGORIES INDICATED IN TABLE 5, THE FASTEST GROWTH OCCURRED IN THE 65 AND OVER AGE CATEGORY. WITHIN THE REGION, THE LARGEST INCREASE IN THIS CATEGORY OCCURRED IN HENDERSON COUNTY WHICH INCREASED BY 35.2% DURING THE PERIOD. THE SIGNIFICANT GROWTH IN THIS AGE CATEGORY REFLECTS THE INCREASING MEDIAN AGE OF THE AREA'S POPULATION WHICH HAS BEEN BROUGHT ABOUT BY THE POPULARITY OF WESTERN NORTH CAROLINA AS A RETIREMENT AREA.

#### INCOME CHARACTERISTICS - REGIONAL

TABLE 7 PRESENTS INFORMATION CONCERNING THE MEDIAN

TABLE 5  
MEDIAN AGE, COUNTY AND UNITED STATES, 1960, 1970

<u>AREA</u>	<u>1960</u>	<u>1970</u>	<u>PERCENT CHANGE 1960-1970</u>
BUNCOMBE	31.4	31.8	1.3
<u>HENDERSON</u>	<u>31.2</u>	<u>32.3</u>	<u>3.5</u>
MADISON	26.3	31.4	19.4
TRANSYLVANIA	25.3	27.0	6.7
<u>UNITED STATES</u>	<u>29.5</u>	<u>28.0</u>	<u>- 5.1</u>

SOURCE: LAND-OF-SKY REGIONAL COUNCIL USING U. S. CENSUS, 1960, 1970.

FAMILY INCOME AND PER CAPITA INCOME LEVELS OF THE UNITED STATES, NORTH CAROLINA AND THE COUNTIES COMPRISING REGION B. ALL COUNTY AND STATE INCOME LEVELS FALL SIGNIFICANTLY BELOW COMPARABLE FIGURES FOR THE UNITED STATES.

PER CAPITA INCOMES THROUGHOUT THE REGION AND IN THE STATE WERE ALSO SIGNIFICANTLY LOWER THAN COMPARABLE FIGURES AT THE NATIONAL LEVEL. FURTHER INFORMATION CONCERNING THE INCOME LEVELS OF THE REGION'S FAMILIES IS CONTAINED IN TABLE 8. IN 1970 THE GREATEST PERCENTAGE OF THE REGION'S FAMILIES (20.3%) HAD INCOMES OF BETWEEN \$10,000 AND \$14,000. THIS PERCENTAGE WAS SLIGHTLY LOWER THAN THE COMPARABLE STATEWIDE FIGURE OF 22.2%.

#### OCCUPATIONAL CHARACTERISTICS - REGIONAL

LARGELY RESPONSIBLE FOR THE RELATIVELY LOW INCOME LEVELS

TABLE 6

## POPULATION, BY MAJOR AGE GROUPING, COUNTY AND

## UNITED STATES, 1960 AND 1970

	1960	1970	Change 1960-70	
			Amount	PerCent
Buncombe County				
Under 18	44,531	45,699	1,168	2.6
18-64	72,477	82,212	9,735	13.4
65 and over	13,066	17,145	4,079	31.2
Henderson County				
Under 18	12,559	13,631	1,072	8.5
18-64	19,330	23,395	4,065	21.0
65 and over	4,274	5,778	1,504	35.2
Madison County				
Under 18	6,041	4,845	-1,196	-19.8
18-64	9,473	9,053	-420	-4.4
65 and over	1,703	2,105	402	23.6
Transylvania County				
Under 18	6,335	6,808	473	7.5
18-64	8,847	11,319	2,472	27.9
65 and over	1,190	1,586	396	33.2
Region B				
Under 18	69,466	70,983	1,517	2.2
18-64	110,127	125,979	15,852	14.4
65 and over	20,233	26,614	6,381	31.5
United States				
Under 18	64,309,916	69,927,793	5,617,877	8.7
18-64	98,808,522	113,180,491	14,371,969	14.5
65 and over	16,207,237	20,101,874	3,894,637	24.0

Source: Land-of-Sky Regional Council using U. S. Census of Population 1960, 1970.

TABLE 7  
 MEDIAN FAMILY AND PER CAPITA INCOME, FOR REGION B  
 COUNTIES, NORTH CAROLINA, UNITED STATES, 1969

AREA	MEDIAN FAMILY INCOME		PER CAPITA INCOME	
	AMOUNT	PERCENT OF U.S.	AMOUNT	PERCENT OF U.S.
BUNCOMBE	\$7,742	80.7	\$2,671	85.6
HENDERSON	6,828	71.2	2,407	77.2
MADISON	4,652	48.5	1,681	53.9
TRANSYLVANIA	8,048	84.0	2,356	75.5
NORTH CAROLINA	7,774	81.1	2,474	79.3
UNITED STATES	9,586	100.0	3,119	100.0

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SOURCE: LAND-OF-SKY REGIONAL COUNCIL USING U.S. CENSUS AND THE U.S. STATISTICAL ABSTRACT, 1974

OF THE REGION'S POPULATION ARE THE TYPES OF OCCUPATIONS IN WHICH THE RESIDENTS ARE EMPLOYED. AS INDICATED IN TABLE 9, THE MAJOR OCCUPATIONAL CATEGORY WITHIN THE REGION AND THE STATE WAS THE OPERATIVE CLASS. THE SIGNIFICANT NUMBER OF WORKERS IN THIS CLASS WAS LARGELY RESPONSIBLE FOR THE RELATIVELY LOW INCOME LEVELS IN BOTH THE REGION AND ACROSS THE STATE.

THE SECOND HIGHEST CATEGORY OF EMPLOYMENT IN REGION B AND IN THE STATE WAS THAT CATEGORY COMPOSED OF CRAFTSMEN, FOREMEN AND KINDRED WORKERS. IN 1970, 15.4% OF THE REGION'S WORKERS WERE IN THIS CATEGORY AS COMPARED WITH 13.6% OF THE WORKERS STATEWIDE.

TABLE 8

## FAMILY INCOME, COUNTY, REGION B, NORTH CAROLINA, 1970

	Buncombe		Henderson		Madison		Transylvania		Region B		North Carolina	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
All families	39,340	100.0	12,165	100.0	4,358	100.0	5,147	100.0	61,010	100.0	1,242,466	100.0
Less than \$1,000	1,188	3.0	825	6.8	266	6.1	81	1.6	2,360	3.9	44,260	3.4
\$1,000 to \$1,999	1,814	4.6	816	6.7	614	14.1	266	5.2	3,510	5.8	70,298	5.4
\$2,000 to \$2,999	2,104	5.3	706	5.8	503	11.5	242	4.7	3,555	5.8	73,770	5.7
\$3,000 to \$3,999	2,625	6.7	865	7.1	560	12.9	303	5.9	4,353	7.1	83,990	6.5
\$4,000 to \$4,999	2,847	7.3	922	7.6	362	8.3	337	6.5	4,468	7.3	92,459	7.2
\$5,000 to \$5,999	3,556	9.0	1,116	9.2	389	8.9	431	8.4	5,492	9.0	103,686	8.0
\$6,000 to \$6,999	3,233	8.2	1,006	8.3	329	7.6	410	8.0	4,978	8.2	100,265	7.8
\$7,000 to \$7,999	3,105	7.9	904	7.4	299	6.9	479	9.3	4,787	7.9	100,136	7.8
\$8,000 to \$8,999	3,190	8.1	882	7.3	196	4.5	510	9.9	4,778	7.8	98,503	7.6
\$9,000 to \$9,999	2,735	7.0	748	6.1	171	3.9	385	7.5	4,039	6.6	88,761	6.9
\$10,000 to \$14,999	8,291	21.1	2,335	19.2	515	11.8	1,249	24.2	12,390	20.3	287,385	22.2
\$15,000 to \$24,999	3,751	9.5	768	6.3	119	2.7	385	7.5	5,023	8.2	116,154	9.0
\$25,000 or more	901	2.3	272	2.2	35	0.8	69	1.3	1,277	2.1	32,799	2.5

Source: Land-of-Sky Regional Council using U. S. Census, 1970.



TABLE 9

## MAJOR OCCUPATION GROUPS, REGION B, NORTH CAROLINA 1970

	<u>Buncombe</u>	<u>Henderson</u>	<u>Madison</u>	<u>Transylvania</u>	<u>Region B</u>	<u>N. C.</u>
Professional, Technical and kindred	13.3	10.9	9.0	15.2	12.7	10.5
Managers and Administrators, except farm	9.0	7.4	5.9	6.8	8.3	7.2
Sales Workers	6.7	6.2	2.2	4.7	6.2	5.7
Clerical and Kindred Workers	15.5	11.5	8.1	10.2	13.9	13.3
Craftsmen, foremen and kindred workers	14.8	17.0	13.4	17.7	15.4	13.6
Operatives, except transport	17.9	23.8	22.7	27.8	20.2	21.1
Transport equipment operatives	4.5	3.9	6.1	1.6	4.2	3.7
Laborers, except farm	4.6	4.8	5.8	5.3	4.8	4.7
Farmers and farm managers	1.0	2.5	17.2	0.7	2.2	2.4
Farm laborers and foremen	0.6	2.5	1.6	0.7	1.0	1.8
Service workers, except private household	10.9	7.8	7.3	7.1	9.2	8.1
Private household workers	2.1	1.7	0.7	2.2	1.9	2.2
Occupation not reported	-	-	-	-	-	5.7
Total employed	100.0	100.0	100.0	100.0	100.0	100.0

Source: Land-of-Sky Regional Council, using U. S. Census, 1970.

## EMPLOYMENT - REGIONAL OVERVIEW

REGION B INCREASED ITS LEVEL OF RESIDENT EMPLOYMENT BY 30.0% DURING THE 1950-1970 PERIOD. DURING THIS PERIOD, THE UNITED STATES AS A WHOLE HAS INCREASED ITS LEVEL OF EMPLOYMENT BY 38.0%. FROM 1960 TO 1970, REGION B'S EMPLOYMENT INCREASED BY 21.7% IN CONTRAST TO AN INCREASE OF 19.5% AT THE NATIONAL LEVEL.

AMONG THE MAJOR SECTORS COMPRISING THE REGION'S ECONOMY, THE MANUFACTURING SECTOR ACCOUNTED FOR THE LARGEST INCREASES IN EMPLOYMENT, GAINING APPROXIMATELY 13,950 WORKERS DURING THE 1950-1970 PERIOD. DURING THIS TIME, MANUFACTURING ALSO INCREASED AS A SHARE OF THE REGION'S TOTAL EMPLOYMENT, RISING FROM 22.9% IN 1950 TO 33.5% IN 1970.

OTHER ECONOMIC SECTORS WHICH EXPERIENCED SIGNIFICANT INCREASES DURING THE 1950 TO 1970 PERIOD WERE SERVICES AND WHOLESALE AND RETAIL TRADE. DURING THIS PERIOD THE SERVICE SECTOR INCREASED BY APPROXIMATELY 5,200 JOBS (33.7%), WHILE THE TRADE SECTOR INCREASED BY APPROXIMATELY 3,300 JOBS OR 28.1%.

THE REGION B AREA OF WESTERN NORTH CAROLINA HAS WITNESSED THE GROWTH IN THE IMPORTANCE OF ITS MANUFACTURING SECTOR DUE TO A NUMBER OF FACTORS. AMONG THE FACTORS HAVE BEEN, (1) THE EXISTENCE OF A SIZABLE AVAILABLE LABOR FORCE; (2) THE DEVELOPMENT OF IMPROVED TRANSPORTATION ROUTES WHICH HAVE AIDED THE SHIPMENT OF GOODS; (3) THE SLOW-DOWN AND EVENTUAL REVERSAL OF OUT-MIGRATION; (4) THE EXPANSION OF SOUTHERN MARKETS; (5) THE DEVELOPMENT OF FEDERALLY-FUNDED SEWER AND

WATER PROJECTS AND OTHER PUBLIC SERVICES REQUIRED BY INDUSTRY; (6) THE AVAILABILITY OF RAW MATERIALS; (7) THE AREA'S LOW WAGE RATES AND; (8) THE SHIFT OF INDUSTRY TO THE SOUTH.

TO A LARGE EXTENT, IT HAS BEEN THESE FACTORS WHICH HAVE BROUGHT ABOUT LATE TRANSFORMATION OF THE REGION'S AGRICULTURE AND SERVICE-ORIENTED ECONOMY TO A MORE DIVERSIFIED ECONOMY CHARACTERIZED BY A GROWING MANUFACTURING SECTOR.

### HENDERSON COUNTY

DURING THE 1950-1970 PERIOD, HENDERSON COUNTY'S RESIDENT EMPLOYMENT LEVEL INCREASED BY APPROXIMATELY 5,370 JOBS, AN INCREASE OF 49.5%. THIS INCREASE OF 49.5% DURING THE PERIOD WAS SIGNIFICANTLY HIGHER THAN THE GROWTH OF 38% AT THE NATIONAL LEVEL DURING THE SAME PERIOD. THE LARGEST INCREASE IN EMPLOYMENT IN HENDERSON COUNTY OCCURRED IN THE MANUFACTURING SECTOR. IN THE TWO DECADES FROM 1950 TO 1970, HENDERSON COUNTY'S MANUFACTURING EMPLOYMENT INCREASED BY APPROXIMATELY 3,600 JOBS OR 142%. THIS GROWTH OF APPROXIMATELY 3,600 JOBS IN THE MANUFACTURING SECTOR ACCOUNTED FOR APPROXIMATELY 68% OF THE JOBS CREATED IN HENDERSON COUNTY DURING THE 1950-1970 PERIOD. THE GROWTH IN MANUFACTURING IN HENDERSON COUNTY WAS AIDED BY THE SAME FACTORS WHICH AIDED THE GROWTH OF MANUFACTURING IN BUNCOMBE COUNTY. WHILE THE MANUFACTURING GROWTH IN BUNCOMBE WAS BROUGHT ABOUT BY THE LOCATION OF A NUMBER OF NEW FIRMS WITHIN THE COUNTY, THE GROWTH IN MANUFACTURING RESIDENT EMPLOYMENT WAS SPURRED PRIMARILY BY THE LOCATION OF TWO LARGE FIRMS WITHIN THE VICINITY

OF HENDERSON COUNTY. THE FIRST WAS THE LOCATION OF THE GENERAL ELECTRIC CORPORATION IN HENDERSON COUNTY IN 1956. THIS WAS FOLLOWED, ALSO IN 1956, BY THE LOCATION OF E. I. DUPONT DE NEUMOURS IN TRANSYLVANIA COUNTY WHICH OFFERED ADDITIONAL EMPLOYMENT OPPORTUNITIES TO THE RESIDENTS OF HENDERSON COUNTY.

ACCOMPANYING THE MANUFACTURING GROWTH IN HENDERSON COUNTY DURING THE 1950-1970 PERIOD WAS A CORRESPONDING GROWTH IN THE SERVICE AND TRADE SECTORS OF THE ECONOMY. DURING THIS TIME, THE COUNTY'S SERVICE SECTOR INCREASED BY 1,131 JOBS WHILE THE TRADE SECTOR INCREASED BY 980. THE GROWTH WITHIN THESE SECTORS, AND PARTICULARLY THE EMPLOYMENT INCREASES IN THE RETAIL TRADE AND PROFESSIONAL SERVICE SUBSECTORS ARE PARTICULARLY NOTEWORTHY SINCE THEY PROVIDE STRONG INDICATIONS OF THE COUNTY'S DEVELOPMENT AS A TRADE AND SERVICE SUB-CENTER WITHIN THE REGION.

OTHER SECTORS EXPERIENCING EMPLOYMENT GROWTH FROM 1950 TO 1970 WERE CONSTRUCTION (445); TRANSPORTATION, COMMUNICATIONS AND UTILITIES (268); FINANCE, INSURANCE AND REAL ESTATE (257); GOVERNMENT (153); AND MINING (19).

DURING THIS PERIOD, THE ONLY SECTOR OF THE HENDERSON COUNTY ECONOMY WHICH EXPERIENCED DECLINES IN THE RESIDENT EMPLOYMENT WAS THE AGRICULTURAL SECTOR WHICH DECLINED BY 620 JOBS. NEVERTHELESS, THIS DECLINE OF 62% IN AGRICULTURAL REPRESENTED THE SLOWEST DECLINE IN AGRICULTURE THROUGHOUT THE ENTIRE REGION, AND GIVES AN INDICATION OF THE RELATIVE STABILITY OF HENDERSON COUNTY'S AGRICULTURAL SECTOR.

WHILE BUNCOMBE COUNTY EXPERIENCED THE LARGEST ABSOLUTE EMPLOYMENT INCREASES IN THE REGION FROM 1970-1974, HENDERSON COUNTY EXPERIENCED THE FASTEST EMPLOYMENT GROWTH, GAINING 2,480 JOBS DURING THE FOUR-YEAR PERIOD. THIS GROWTH IN EMPLOYMENT AMOUNTED TO AN INCREASE OF 16.7% OVER THE COUNTY'S 1970 FIGURE OF 12,840. (SEE TABLE 10)

WITHIN THE COUNTY, THE LARGEST EMPLOYMENT INCREASES OCCURRED IN EMPLOYMENT CLASSIFICATIONS COMPOSED OF SUCH CATEGORIES AS CONSTRUCTION; FINANCE, INSURANCE AND REAL ESTATE; TRANSPORTATION, COMMUNICATION AND UTILITIES; AND GOVERNMENT. OVERALL THIS CATEGORY GAINED APPROXIMATELY 1,170 JOBS, AN INCREASE OF 31.2%. ACCORDING TO DATA SUPPLIED BY THE EMPLOYMENT SECURITY COMMISSION, THE LARGEST EMPLOYMENT INCREASES IN THE CATEGORY OCCURRED IN THE CONSTRUCTION INDUSTRY WHICH INCREASED BY 670 JOBS. THIS INCREASE IN CONSTRUCTION WAS DUE, TO SOME EXTENT, TO THE INCREASED DEVELOPMENT WHICH OCCURRED IN THE I-26/U.S. 25 CORRIDOR AND TO THE INCREASED DEMAND FOR VACATION AND RETIREMENT HOMES WHICH OCCURRED IN THE 1970-74 PERIOD. THIS INCREASE IN CONSTRUCTION WAS FOLLOWED BY EMPLOYMENT GAINS OF 390 IN GOVERNMENT AND 110 IN FINANCE, INSURANCE AND REAL ESTATE. DURING THE SAME PERIOD, EMPLOYMENT IN TRANSPORTATION, COMMUNICATION AND UTILITIES DECLINED BY 140.

FOLLOWING THE INCREASES WHICH OCCURRED IN THE "OTHER EMPLOYMENT" CATEGORY, WERE THE GAINS WHICH OCCURRED IN THE COUNTY'S MANUFACTURING SECTOR. DURING THE 1970-1974 PERIOD, MANUFACTURING EMPLOYMENT INCREASED BY APPROXIMATELY 640 JOBS,



TABLE 10  
AT-PLACE EMPLOYMENT\*, BY SECTOR, HENDERSON COUNTY, 1970-1974

	1970		1971		1972		1973		1974		Change 1970-74	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Agriculture and Forestry	1,250	8.4	1,180	7.4	1,260	7.9	1,230	7.2	1,130	6.5	-120	-9.6
Manufacturing	4,710	31.7	5,030	31.7	4,960	31.2	5,390	31.4	5,350	30.9	640	13.6
Trade	2,540	17.1	2,660	16.8	2,770	17.5	2,820	16.5	2,990	17.3	450	17.7
Service	2,590	17.5	2,730	17.2	2,480	15.6	2,750	16.0	2,930	16.9	340	13.1
Other	3,750	25.3	4,270	26.9	4,420	27.8	4,950	28.9	4,920	28.4	1,170	31.2
Total	14,840	100.0	15,870	100.0	15,890	100.0	17,140	100.0	17,320	100.0	2,480	16.7

\*ESC at-place employment data have been modified to account for the self-employed.

Source: Land-of-Sky Regional Council using Annual Average Labor Force Estimates 1970-74, North Carolina Employment Security Commission

AN INCREASE OF 13.6% OVER THE COUNTY'S 1970 FIGURE OF 4,710. WHILE THE GROWTH OF HENDERSON COUNTY'S MANUFACTURING SECTOR WAS SLOWED BY THE RECESSION, IT IS IMPORTANT TO NOTE THAT HENDERSON COUNTY HAS RECEIVED A STEADILY INCREASING SHARE OF THE REGION'S PLANT RELOCATIONS WHICH HAVE OCCURRED SINCE 1965. (SEE TABLE 10). HENDERSON COUNTY WAS THE SITE OF 7.7% OF THE PLANT RELOCATIONS WHICH OCCURRED IN THE REGION DURING THE 1965-1968 PERIOD. IN THE 1967-1972 PERIOD THIS FIGURE ROSE TO 17.8% AND INCREASED EVEN FURTHER TO 41.2% IN THE 1973-1975 PERIOD IN WHICH SEVEN OF THE TEN FIRMS WHICH MOVED INTO THE REGION LOCATED IN HENDERSON COUNTY.

WHILE HENDERSON COUNTY EXPERIENCED THE FASTEST MANUFACTURING GROWTH OF ALL COUNTIES IN REGION B IN THE 1970-74 PERIOD, THE CENSUS DATA INDICATES THAT THE EMPLOYMENT GROWTH WHICH IS OCCURRING IN THE COUNTY IS A RELATIVELY RECENT PHENOMENON. HENDERSON COUNTY CONTAINED 56 INDUSTRIAL FIRMS IN 1972. THIS FIGURE REPRESENTS A LOSS OF FOUR FIRMS IN THE 1967-72 PERIOD (SEE TABLE 11). THE VITALITY AND CONTINUED GROWTH OF HENDERSON COUNTY'S MANUFACTURING SECTOR, HOWEVER, IS UNDERSCORED BY THE INCREASE OF 70% IN THE COUNTY'S VALUE ADDED BY MANUFACTURE. DURING THIS PERIOD, THIS FIGURE ROSE FROM \$47.4 MILLION IN 1967 TO \$80.6 MILLION IN 1972. (SEE TABLE 11).

THE DATA CONCERNING THE GROWTH OF MANUFACTURING IN HENDERSON COUNTY IS STRONG EVIDENCE OF A TREND TOWARD THE DECENTRALIZATION OF MANUFACTURING EMPLOYMENT WITHIN REGION B. TRADITIONALLY, THE GROWTH OF MANUFACTURING WHICH HAS OCCURRED IN THE REGION HAS BEEN CENTERED IN BUNCOMBE COUNTY. WHILE THE

TABLE 11

MANUFACTURES: ESTABLISHMENTS AND VALUE ADDED BY  
MANUFACTURE, HENDERSON COUNTY 1967, 1972

	<u>1972</u>	<u>1967</u>
ESTABLISHMENTS	56	60
WITH 20 EMPLOYEES OR MORE	21	25
VALUE ADDED BY MANUFACTURE		
(IN MILLIONS)	\$80.6	\$47.4

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SOURCE: U. S. CENSUS OF MANUFACTURERS, 1967, 1972

BULK OF THE REGION'S MANUFACTURING EMPLOYMENT WILL CONTINUE TO BE LOCATED IN BUNCOMBE COUNTY, AN INCREASING SHARE OF THIS EMPLOYMENT CAN BE EXPECTED TO LOCATE IN HENDERSON COUNTY, AND PARTICULARLY IN AREAS NEAR THE I-26/U.S. 25 CORRIDOR WHICH CONTAINS PRIME INDUSTRIAL LAND AND GOOD ACCESS.

ALSO EXPERIENCING EMPLOYMENT INCREASES DURING THE 1970-1974 PERIOD WERE THE COUNTY'S TRADE AND SERVICE SECTORS. FROM 1970 TO 1974, EMPLOYMENT IN THE TRADE SECTOR INCREASED BY 17.7% WHILE SERVICE EMPLOYMENT INCREASED BY 13.1%. THIS INCREASE IN THE COUNTY'S TRADE SECTOR REPRESENTED THE FASTEST GROWTH OF ANY SECTOR OF HENDERSON COUNTY'S ECONOMY. THESE INCREASES ARE TO A LARGE DEGREE REFLECTIVE OF THE POPULATION INCREASES WHICH HAVE OCCURRED THROUGHOUT THE COUNTY, BOTH AS A RESULT OF THE COUNTY'S NEW MANUFACTURING EMPLOYMENT OPPORTUNITIES AND THE AREA'S GROWING RETIREMENT COMMUNITY. AS THE POPULATION HAS INCREASED, EXPANDING THE MARKETS FOR GOODS

AND SERVICES, ADDITIONAL TRADE AND SERVICE ESTABLISHMENTS HAVE LOCATED IN ORDER TO MEET THE INCREASED DEMANDS FOR GOODS AND SERVICES.

FURTHER INDICATION OF THE EXTENT AND LOCATION OF THE GROWTH IN THE COUNTY'S SERVICE AND TRADE SECTORS ARE PRESENTED IN TABLE 12, 13, AND 14. AS INDICATED IN TABLE 12, HENDERSON COUNTY, IN 1972, CONTAINED 433 RETAIL TRADE ESTABLISHMENTS. THIS FIGURE REPRESENTED A NET INCREASE OF 27 ESTABLISHMENTS OVER THE COUNTY'S 1967 FIGURE OF 406. WHILE THE INCREASE IS SIGNIFICANT, THE MORE NOTEWORTHY ASPECT OF THE TABLE CONCERNS THE LOCATION OF THESE ESTABLISHMENTS. IN THE 1967-71 PERIOD, THE CITY OF HENDERSONVILLE GAINED 63 NEW RETAIL ESTABLISHMENTS WHILE THE REMAINING AREAS OF THE COUNTY OUTSIDE THE CITY LIMITS LOST 36. WHILE THE EXTENT OF THIS SHIFT IN LOCATION WAS AFFECTED TO SOME EXTENT BY THE ANNEXATION OF THE DRUID HILLS AND CHADWICK-SPARTANBURG HIGHWAY AREAS DURING THE 1967-71 PERIOD, THE TREND TOWARD CENTRALIZATION OF THE TRADE SECTOR WAS, NEVERTHELESS, STILL APPARENT DURING THIS TIME.

THE TREND TOWARD A GREATER CENTRALIZATION OF ACTIVITY IN THE CITY OF HENDERSONVILLE WAS ALSO CHARACTERISTIC OF THE COUNTY'S SERVICE SECTOR. AS INDICATED IN TABLE 14, HENDERSONVILLE CONTAINED 49.8% OF THE COUNTY'S SERVICE ESTABLISHMENTS IN 1967. IN 1972, THE CITY CONTAINED 59.5% OF THESE ESTABLISHMENTS, AN INCREASE IN PERCENT OF 9.7 DURING THE PERIOD.

THE DATA CONTAINED IN TABLES 12, 13 AND 14 PROVIDES PERHAPS

TABLE 12  
RETAIL TRADE: ESTABLISHMENTS AND SALES, HENDERSON COUNTY  
1967, 1972

	<u>1972</u>		<u>1967</u>	
	<u>ESTABLISHMENTS</u>	<u>SALES (\$1,000)</u>	<u>ESTABLISHMENTS</u>	<u>SALES (\$1,000)</u>
HENDERSON COUNTY	433	\$90,279	406	\$56,742
HENDERSON-VILLE	290	71,496	227	40,206
REMAINDER OF COUNTY	143	18,783	179	16,536

SOURCE: RETAIL TRADE-AREA STATISTICS, CENSUS OF  
RETAIL TRADE, 1967, 1972

TABLE 13  
WHOLESALE TRADE: ESTABLISHMENTS AND SALES, HENDERSON COUNTY  
1967, 1972

	<u>1972</u>		<u>1967</u>	
	<u>ESTABLISHMENTS</u>	<u>SALES (\$1,000)</u>	<u>ESTABLISHMENTS</u>	<u>SALES (\$1,000)</u>
HENDERSON COUNTY	62	\$43,521	46	\$43,160
HENDERSON-VILLE	39	30,899	31	14,265
REMAINDER OF COUNTY	23	12,622	15	28,895

SOURCE: WHOLESALE TRADE; AREA STATISTICS, CENSUS OF  
WHOLESALE TRADE, 1967, 1972



THE BEST INDICATIONS OF THE DIFFERENCE IN DEVELOPMENTAL STAGES OF REGION B'S TWO PRIMARY URBAN AREAS, ASHEVILLE AND HENDERSONVILLE. WHILE THE RECENT PAST HAS WITNESSED A RELATIVE DECLINE IN IMPORTANCE OF THE CITY OF ASHEVILLE AS THE CENTER OF BOTH COUNTIES' AND THE REGION'S TRADE AND SERVICE ACTIVITY, THE CITY OF HENDERSONVILLE HAS EXPERIENCED GROWTH IN THESE SECTORS. THIS PHENOMENON IS A CHARACTERISTIC OF A DEVELOPING AND MATURING URBAN AREA. IT IS EXPECTED THAT AS POPULATION INCREASES OCCUR THROUGHOUT HENDERSON COUNTY, TRADE ESTABLISHMENTS WILL FOLLOW THIS GROWTH AND LOCATE IN AREAS OUTSIDE THE CITY OF HENDERSONVILLE. IT IS EXPECTED THAT THE CITY'S SERVICE SECTOR WILL CONTINUE TO EXPAND DUE TO THE LOCATIONAL REQUIREMENTS OF SPECIALIZED SERVICE ACTIVITIES INCLUDING THE EXCELLENT ACCESS TO THE CITY.

THE AGRICULTURAL SECTOR OF THE COUNTY'S ECONOMY CONTINUED TO PLAY A VITAL ROLE IN THE 1970-74 PERIOD. IN LINE WITH THE OTHER COUNTIES IN THE REGION, HENDERSON COUNTY EXPERIENCED A DECLINE OF 120 JOBS IN THE AGRICULTURAL SECTOR DURING THE PERIOD. ALONG WITH THE DECLINE IN AGRICULTURAL EMPLOYMENT, THE AREA ALSO EXPERIENCED A DECLINE IN THE NUMBER OF FARMS. ACCORDING TO THE 1969 U. S. CENSUS OF AGRICULTURE (SEE TABLE 15) THE NUMBER OF FARMS WITHIN THE COUNTY DECLINED FROM 1051 IN 1964 TO 947 IN 1969. DESPITE THIS DECLINE, HENDERSON COUNTY EXPERIENCED AN INCREASE IN AVERAGE FARM SIZE (INCREASING FROM 80.3 ACRES IN 1966 TO 92.3 ACRES IN 1969) AND IN ACRES OF CROPLAND. AS INDICATED IN TABLE 16, THE COUNTY, IN 1970, CONTAINED 32,700 ACRES OF CROPLAND. BY 1973

TABLE 14  
SERVICE ESTABLISHMENTS AND RECEIPTS, HENDERSON COUNTY  
1967, 1972

	<u>1972</u>		<u>1967</u>	
	<u>ESTABLISHMENTS</u>	<u>SALES (\$1,000)</u>	<u>ESTABLISHMENTS</u>	<u>SALES (\$1,000)</u>
HENDERSON COUNTY	348	\$14,050	271	\$ 7,842
HENDERSON-VILLE	207	6,590	135	4,367
REMAINDER OF COUNTY	141	7,460	136	3,475

SOURCE: SELECTED SERVICE INDUSTRIES - AREA STATISTICS,  
U. S. CENSUS OF BUSINESS, 1972, 1967.

TABLE 15  
NUMBER OF FARMS AND AVERAGE SIZE OF FARM  
HENDERSON COUNTY 1964, 1969

	<u>1969</u>	<u>1964</u>
ALL FARMS	947	1,051
AVERAGE SIZE OF FARM (ACRES)	92.3	80.3

SOURCE: U. S. CENSUS OF AGRICULTURE, 1969

TABLE 16  
ACRES IN HARVESTED AND IDLE CROPLAND AND ESTIMATED FARM  
INCOME, HENDERSON COUNTY, 1970-1973

<u>YEAR</u>	<u>ACRES OF HARVESTED AND IDLE CROPLAND</u>	<u>ESTIMATED FARM INCOME</u>
1970	32,700	\$17,355,014
1971	34,915	15,517,732
1972	29,933	17,853,000
1973	32,969	18,521,000

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SOURCE: PROFILE: NORTH CAROLINA COUNTIES, 1969, P. 92

THIS FIGURE HAD RISEN TO 32,969 ACRES. THESE FIGURES INDICATE A CONSOLIDATION OF FARMS WITHIN THE COUNTY. SIMILARLY, THE COUNTY EXPERIENCED A STEADY INCREASE IN FARM INCOME, RISING TO \$18,521,000 IN 1973. THIS FIGURE REPRESENTED THE HIGHEST FARM INCOME OF ANY COUNTY WITHIN THE REGION IN 1973. THE 1975 FARM INCOME PROVIDED BY THE AGRICULTURAL EXTENSION AGENT FOR HENDERSON COUNTY WAS \$28,241,139. THIS DATA PROVIDES AN INDICATION OF THE SIGNIFICANT ROLE OF THE AGRICULTURAL SECTOR IN THE COUNTY'S ECONOMY.

#### HENDERSON COUNTY POPULATION

THE DEVELOPMENT OF POPULATION AND EMPLOYMENT PROJECTIONS INVOLVES THE DETERMINATION OF THE LEVELS OF POPULATION AND EMPLOYMENT WHICH CAN BE EXPECTED TO EXIST IN A PARTICULAR GEOGRAPHIC AREA AT A CERTAIN TIME IN THE FUTURE BASED ON

CERTAIN EXPECTED OCCURRENCES.

IN DEVELOPING POPULATION EMPLOYMENT PROJECTIONS FOR HENDERSON COUNTY AND REGION B A NUMBER OF FACTORS WERE CONSIDERED BY THE PLANNING STAFF OF LAND-OF-SKY REGIONAL COUNCIL. AMONG THESE FACTORS WERE THE FOLLOWING:

1. THE PAST POPULATION LEVELS IN EACH OF THE COUNTIES, TOWNSHIPS, CITIES AND INCORPORATED AREAS WITHIN THE REGION;
2. EACH AREA'S SHARE OF PAST POPULATION GROWTH;
3. EACH COUNTY'S PAST SHARE OF THE REGION'S EMPLOYMENT GROWTH;
4. EACH TOWNSHIP'S PAST SHARE OF EMPLOYMENT GROWTH;
5. THE AMOUNT OF AVAILABLE DEVELOPABLE LAND IN EACH AREA;
6. THE EXISTENCE AND EXTENT OF PUBLIC SERVICES SUCH AS WATER AND SEWER;
7. PAST AND PRESENT DEVELOPMENT PATTERNS;
8. PLANNED LARGE SCALE ECONOMIC ENTERPRISES;
9. TIME-DISTANCE ACCESS FROM EACH AREA TO POPULATION AND/OR EMPLOYMENT CENTERS;
10. EXPECTED TRANSPORTATION IMPROVEMENTS;
11. INDICATIONS OF THE AMOUNT OF INDUSTRIAL LAND WITHIN EACH AREA.

UTILIZING THE ABOVE FACTORS, PROJECTIONS OF EMPLOYMENT AND POPULATION WERE DEVELOPED.

THE DEVELOPMENT OF THE POPULATION AND EMPLOYMENT PROJECTIONS INVOLVED THE FOLLOWING STEPS;

1. THE DEVELOPMENT OF REGIONAL AT-PLACE EMPLOYMENT PROJECTIONS;

2. THE DISTRIBUTION OF REGIONAL AT-PLACE EMPLOYMENT TO EACH COUNTY COMPRISING THE REGION;

3. THE DEVELOPMENT OF POPULATION PROJECTIONS FOR EACH COUNTY.

4. THE TESTING OF THE POPULATION PROJECTIONS USING A COHENT-SURVIVAL TECHNIQUE WHICH ASSUMED NO MIGRATION;

5. THE ALLOCATION OF THE COUNTY POPULATION TO TOWNSHIPS, CITIES AND INCORPORATED AREAS;

6. THE ALLOCATION OF COUNTY EMPLOYMENT TO THE TOWNSHIP LEVEL.

(A DETAILED EXPLANATION OF THE METHODOLOGY EMPLOYED IN DEVELOPING THE POPULATION AND EMPLOYMENT PROJECTIONS IS CONTAINED IN APPENDIX A OF THE LAND-OF-SKY REGIONAL STUDY ENTITLED POPULATION AND EMPLOYMENT STUDY, REGION B, NORTH CAROLINA.)

IT SHOULD BE NOTED THAT THE PRIMARY PURPOSE IN THE DEVELOPMENT OF THE FOLLOWING POPULATION AND EMPLOYMENT PROJECTIONS IS NOT TO DETERMINE THE EXACT NUMBER OF RESIDENTS IN AN AREA OR THE EXACT NUMBER OF EMPLOYEES IN EACH EMPLOYMENT SECTOR. THE PURPOSE IN DEVELOPING THE PROJECTIONS IS TO ESTABLISH A CONCEPT OF THE DIRECTION AND MAGNITUDE OF EXPECTED DEVELOPMENT AND TO EXAMINE THE IMPLICATIONS OF THAT GROWTH IN ORDER THAT REALISTIC PUBLIC POLICIES AND PLANS CAN BE DEVELOPED IN AN ATTEMPT TO GUIDE GROWTH WITHIN THE AREA.

POPULATION LEVELS FOR THE YEARS 1970 TO 2000 FOR THE



FOUR COUNTIES COMPRISING REGION B ARE PRESENTED IN TABLE 17. THE REGION B AREA OF WESTERN NORTH CAROLINA CAN BE EXPECTED TO GAIN APPROXIMATELY 73,000 RESIDENTS FROM 1975 TO THE YEAR 2000. THIS GROWTH OF APPROXIMATELY 30% WILL PLACE THE REGION'S TOTAL POPULATION AT A LEVEL OF 315,500 IN THE YEAR 2000.

HISTORICALLY, THE LARGEST POPULATION INCREASES HAVE OCCURRED IN BUNCOMBE COUNTY, GEOGRAPHICALLY THE LARGEST COUNTY IN REGION B. DURING THE PERIOD 1975-2000, BUNCOMBE COUNTY IS EXPECTED TO INCREASE ITS POPULATION LEVEL BY APPROXIMATELY 40,500 RESIDENTS OR 26.1%.

WHILE BUNCOMBE COUNTY WILL CONTINUE TO RECEIVE THE LARGEST SHARE OF THE REGION'S POPULATION GROWTH, HENDERSON COUNTY IS EXPECTED TO EXPERIENCE THE LARGEST GROWTH RATE OF ANY COUNTY WITHIN THE REGION. FROM 1975-2000, HENDERSON COUNTY IS EXPECTED TO EXPERIENCE A POPULATION INCREASE OF APPROXIMATELY 21,600, AN INCREASE OF 45.8%. TO A LARGE EXTENT, THIS INCREASE IN POPULATION WILL OCCUR IN THE VICINITY OF THE I-26/U.S. 25 CORRIDOR. THIS AREA OF THE REGION--RUNNING FROM SOUTH ASHEVILLE TO HENDERSONVILLE--IS EXPECTED TO EXPERIENCE THE LARGEST DEGREE OF DEVELOPMENT TO THE YEAR 2000.

FOLLOWING HENDERSON COUNTY IN THE AMOUNT OF POPULATION INCREASE WILL BE TRANSYLVANIA COUNTY WITH AN INCREASE OF APPROXIMATELY 8,000 BY THE YEAR 2000. THIS GROWTH RATE OF 38.3% RANKS SECOND IN THE REGION, EXCEEDED ONLY BY HENDERSON COUNTY WITH A GROWTH RATE OF 45.8% MADISON COUNTY IS EXPECTED TO EXPERIENCE A POPULATION INCREASE OF APPROXIMATELY 2,300 RESIDENTS OR 13.6%, TO THE YEAR 2000.

TABLE 17

## POPULATION, REGION B, BY COUNTY, 1970-2000

	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>Change Amount</u>	<u>1975-2000 Percent</u>
Buncombe	145,056	155,200	164,000	171,900	182,100	189,100	195,700	40,500	26.1
Henderson	42,804	47,200	50,800	54,600	59,100	63,600	68,800	21,600	45.8
Madison	16,003	16,900	17,200	17,600	18,200	18,600	19,200	2,300	13.6
Transylvania	19,713	23,000	25,700	27,800	29,000	30,400	31,800	8,800	38.3
Region B	223,567	242,300	257,700	271,900	288,400	301,700	315,500	73,200	30.2

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Source: U. S. Census of Population, 1970, Estimates and Projections by Land-of-Sky Regional Council

## AGE DISTRIBUTION

DURING THE 1975-2000 PERIOD IT IS EXPECTED THAT THE LARGEST INCREASE IN POPULATION WILL OCCUR IN THE 35-44 AGE GROUP. IN THE 25 YEAR PERIOD IT IS ANTICIPATED THAT THIS AGE GROUP WILL INCREASE BY APPROXIMATELY 23,280 INDIVIDUALS, AN INCREASE OF 82.2% OVER IT 1975 LEVEL OF 28,330. FROM 1975-2000 IT IS EXPECTED THAT THE AGE GROUPING 45-54, WILL INCREASE APPROXIMATELY 64% OVER ITS 1975 LEVEL OF 27,000. THE SIGNIFICANT INCREASES IN POPULATION IN THESE AGE CATEGORIES REFLECT THE JOB GROWTH WHICH IS EXPECTED TO OCCUR WITHIN THE REGION. IT IS THESE AGE GROUPS (35-44 AND 45-54) THAT WILL COMPRISE A LARGE PORTION OF THE REGIONAL AND NATIONAL WORK FORCE TO THE YEAR 2000.

ALSO EXPERIENCING A SIGNIFICANT INCREASE FROM 1975 TO THE YEAR 2000 WILL BE THE REGION'S ELDERLY POPULATION, I.E., THOSE RESIDENTS AGE 65 AND OVER. DURING THIS PERIOD, IT IS EXPECTED THAT THIS SEGMENT OF THE REGION'S POPULATION WILL INCREASE BY APPROXIMATELY 10,680 RESIDENTS, A GAIN OF APPROXIMATELY 34% OVER ITS 1975 FIGURE OF 31,120. THE GROWTH OF THIS REGION AS A RETIREMENT AREA IS EXPECTED TO BE PARTICULARLY NOTICEABLE IN HENDERSON AND TRANSYLVANIA COUNTIES. THIS SEGMENT OF THE POPULATION (65 AND OVER) IS EXPECTED TO INCREASE BY APPROXIMATELY 46% IN HENDERSON COUNTY AND 44% IN TRANSYLVANIA COUNTY.

FROM 1975 TO 2000 A RELATIVELY SLOW GROWTH CAN BE EXPECTED TO OCCUR IN THAT SEGMENT OF THE POPULATION UNDER 24 YEARS OF AGE. DURING THE PERIOD, THE AGE UNDER 5, 5-19

AND 20-24 YEARS CAN BE EXPECTED TO INCREASE BY 11.7%, 11.9% AND 2.3% RESPECTIVELY. TO A LARGE EXTENT, THE RELATIVELY SMALL INCREASES IN THESE AGE GROUPINGS WILL BE A RESULT OF THE LOW BIRTH RATES WHICH ARE EXPECTED TO CHARACTERIZE THE PERIOD FROM 1975 TO 2000 AND THE CONTINUING HIGH LABOR FORCE PARTICIPATION RATES OF THE FEMALES IN THE CHILD-BEARING GROUPS (SEE TABLE 18).

### RACIAL COMPOSITION

AS INDICATED IN TABLE 19, THE REGION'S WHITE POPULATION IS EXPECTED TO INCREASE BY APPROXIMATELY 70,400 RESIDENTS, AN INCREASE OF 31.2% DURING THE PERIOD FROM 1975-2000. DURING THIS PERIOD, THE LARGEST PERCENTAGE INCREASE IN WHITE POPULATION WILL OCCUR IN HENDERSON COUNTY WHERE THIS SEGMENT OF THE COUNTY'S POPULATION IS EXPECTED TO INCREASE BY 46.0% OVER ITS 1975 FIGURE OF 45,100.

THE REGION'S NON-WHITE POPULATION, ON THE OTHER HAND, IS EXPECTED TO INCREASE BY APPROXIMATELY 2,780, AN INCREASE OF 16.6% DURING THE 1975-2000 PERIOD. AS INDICATED IN THE TABLE, THE LARGEST INCREASE IN NON-WHITE POPULATIONS ARE EXPECTED TO OCCUR IN BUNCOMBE AND HENDERSON COUNTIES, THE SITES OF THE REGION'S MAJOR URBAN AREAS.

### HENDERSON COUNTY POPULATION PROJECTIONS

HENDERSON COUNTY IS EXPECTED TO EXPERIENCE THE LARGEST PERCENTAGE INCREASE IN POPULATION OF ALL OF THE REGION'S COUNTIES FROM 1975 TO 2000. DURING THIS PERIOD, THE COUNTY'S

TABLE 18

## HENDERSON COUNTY AGE COMPOSITION, 1975-2000

<u>Age Groups</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>Change Amount</u>	<u>1975-2000 Percent</u>
Under 5	3,530	3,415	3,880	4,150	4,165	4,145	615	17.4
5-19	11,360	11,185	11,145	11,555	12,390	13,345	1,985	17.5
20-24	3,410	4,020	3,900	3,560	3,835	4,065	655	19.2
25-34	6,800	8,500	9,340	10,350	10,080	9,830	3,030	44.6
35-44	5,550	5,960	7,550	9,325	10,355	11,595	6,045	108.9
45-54	5,090	5,125	5,545	6,045	7,780	9,670	4,580	90.0
55-64	5,105	5,590	5,675	5,795	6,300	6,885	1,780	34.9
65 and Over	6,355	7,005	7,565	8,320	8,695	9,265	2,910	45.8
Total	47,200	50,800	54,600	59,100	63,600	68,800	-	-

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 Source: Land-of-Sky Regional Council



TABLE 19

RACIAL COMPOSITION, HENDERSON COUNTY, BY TOWNSHIP AND INCORPORATED AREA, 1975-2000

	1975		1980		1985		1990		1995		2000		White Change 1975-2000		Non White Change 1975-2000	
	White	Non White	White	Non White	White	Non White	White	Non White	White	Non White	White	Non White	Amount	Percent	Amount	Percent
Blue Ridge Twp.	3,855	25	4,185	25	4,575	25	4,970	30	5,370	30	5,805	35	1,950	50.6	10	40.0
Clear Creek Twp.	1,865	85	1,980	90	2,105	95	2,265	105	2,440	110	2,640	120	775	41.6	35	41.2
Crab Creek Twp.	1,480	-	1,920	-	2,380	-	2,930	-	3,500	-	4,160	-	2,680	181.1	-	-
Edneyville Twp.	2,090	30	2,305	35	2,490	40	2,720	40	2,945	45	3,200	50	1,110	53.1	20	66.7
Green River Twp.	2,255	45	2,445	45	2,600	50	2,805	55	3,000	60	3,220	60	965	42.8	15	33.3
Hendersonville Twp.	25,380	1,650	26,980	1,760	28,725	1,865	30,755	1,995	32,820	2,130	35,165	2,285	9,785	38.6	635	38.5
Hoopers Creek Twp.	3,735	265	4,080	290	4,435	315	4,920	350	5,345	375	5,915	415	2,180	58.4	150	56.6
Mills River Twp.	4,440	-	4,660	-	4,900	-	5,160	-	5,430	-	5,730	-	1,290	79.1	-	-
Total	45,100	2,100	48,555	2,245	52,210	2,390	56,525	2,575	60,850	2,750	65,835	2,965	20,735	46.0	865	41.2
Incorporated Areas:																
Hendersonville	5,800	1,440	6,240	1,550	6,690	1,660	7,185	1,785	7,665	1,905	8,125	2,015	2,325	40.0	575	39.9
Laurel Park	660	-	690	-	730	-	770	-	800	-	860	-	200	30.3	-	-

- indicates a negligible amount of population

Source: Land-of-Sky Regional Council

POPULATION IS EXPECTED TO INCREASE FROM 47,200 TO 68,000, AN INCREASE OF 21,600 RESIDENTS. THIS INCREASE IS THE EQUIVALENT OF AN INCREASE OF 45.8% DURING THE PERIOD (SEE TABLE 20).

A PRIMARY FACTOR IN CAUSING THE POPULATION INCREASE WITHIN THE COUNTY WILL BE THE CONTINUED DEVELOPMENT OF THE I-26/U.S. 25 CORRIDOR. OF THE TOTAL COUNTY POPULATION INCREASE OF 21,600, APPROXIMATELY 59% WILL OCCUR IN HENDERSONVILLE AND HOOPER'S CREEK TOWNSHIPS.

WITHIN THE COUNTY, THE LARGEST POPULATION INCREASE IS EXPECTED TO OCCUR IN HENDERSONVILLE TOWNSHIP. BY THE YEAR 2000, IT IS ANTICIPATED THAT THIS AREA WILL HAVE INCREASED BY APPROXIMATELY 10,400 RESIDENTS, AN INCREASE OF 38.5% OVER ITS 1975 LEVEL OF 27,030. CONTRIBUTING SIGNIFICANTLY TO THIS POPULATION INCREASE WILL BE THE AVAILABILITY OF ESSENTIAL PUBLIC SERVICES, THE EXISTENCE OF AVAILABLE LAND, AND GOOD ACCESS TO JOB OPPORTUNITIES IN THE I-26/U.S. 25 CORRIDOR. DURING THIS TIME, THE CITY OF HENDERSONVILLE, THE COUNTY'S TRADE AND SERVICE CENTER, IS EXPECTED TO INCREASE BY APPROXIMATELY 2,900 RESIDENTS.

ALSO EXPECTED TO EXPERIENCE A SIGNIFICANT POPULATION INCREASE TO THE YEAR 2000 IS CRAB CREEK TOWNSHIP. DURING THE 1975-2000 PERIOD, IT IS ANTICIPATED THAT THIS AREA WILL INCREASE BY APPROXIMATELY 2,700 RESIDENTS, A GROWTH OF 181% OVER ITS 1975 POPULATION LEVEL OF 1,480. LARGELY CONTRIBUTING TO THIS GROWTH IN POPULATION WILL BE THE TOWNSHIP'S LOCATION BETWEEN THE EMPLOYMENT CENTERS OF HENDERSONVILLE TOWNSHIP

AND OLIN AND DUPONT IN TRANSYLVANIA COUNTY.

OTHER GROWTH AREAS WITHIN HENDERSON COUNTY ARE EXPECTED TO EXPERIENCE SIGNIFICANT GROWTH TO THE YEAR 2000 INCLUDING HOOPER'S CREEK TOWNSHIP (2,300) AND BLUE RIDGE TOWNSHIP (1,960). MOST SECTIONS OF THE COUNTY WILL CONTINUE TO DEVELOP AS RETIREMENT AND VACATION HOME COMMUNITIES. (SEE TABLE 20)

#### AGE DISTRIBUTION - COUNTY

THE SIZEABLE POPULATION AND EMPLOYMENT GROWTH WHICH IS EXPECTED TO OCCUR IN THE COUNTY FROM 1975 TO 2000 WILL BE THE PRIMARY CAUSE OF THE RAPID INCREASES WHICH ARE ANTICIPATED IN EACH COUNTY'S AGE CATEGORIES. AS INDICATED IN TABLE 18, HENDERSON COUNTY'S POPULATION GROWTH IN EACH AGE COHORT REPRESENTS THE FASTEST INCREASE IN THAT PARTICULAR CATEGORY OF ALL THE COUNTIES IN THE REGION. IN LINE WITH REGIONAL TRENDS, THE FASTEST POPULATION GROWTH WITHIN THE COUNTY IS EXPECTED TO OCCUR IN THE 35-44 AND 45-54 AGE CATEGORIES. DURING THE 1975-2000 PERIOD, IT IS EXPECTED THAT THE POPULATION IN THE 35-44 AGE COHORT WILL INCREASE BY APPROXIMATELY 6,000 RESIDENTS, A GROWTH OF 112.6% OVER THE COUNTY'S 1975 FIGURE OF 5,380.

DURING THE 1975-2000 PERIOD, THE YOUNGER AGE GROUPS WITHIN THE COUNTY ARE ALSO EXPECTED TO EXPERIENCE POPULATION INCREASES. IN THE 25 YEAR PERIOD, THE UNDER 5, 5-19 AND 20-24 AGE GROUPS ARE EXPECTED TO INCREASE TO 17.1%, 18.0% AND 18.2% RESPECTIVELY.

TABLE 20

## HENDERSON COUNTY POPULATION, BY TOWNSHIP AND INCORPORATED AREA, 1970-2000

	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	Change Amount	1975-2000 PerCent
Blue Ridge Twp.	3,197	3,880	4,210	4,600	5,000	5,400	5,840	1,960	50.5
Clear Creek Twp.	1,904	1,950	2,070	2,200	2,370	2,550	2,760	810	41.5
Crab Creek Twp.	981	1,480	1,920	2,380	2,930	3,500	4,160	2,680	181.1
Edneyville Twp.	1,633	2,120	2,340	2,530	2,760	2,990	3,250	1,130	53.3
Green River Twp.	2,078	2,300	2,490	2,650	2,860	3,060	3,280	980	42.6
Hendersonville Twp.	25,018	27,030	28,740	30,590	32,750	34,950	37,450	10,420	38.5
Hoopers Creek Twp.	3,815	4,000	4,370	4,750	5,270	5,720	6,330	2,330	58.3
Mills River Twp.	4,178	4,440	4,660	4,900	5,160	5,430	5,730	1,290	29.1
Total	42,804	47,200	50,800	54,600	59,100	63,600	68,800	21,600	45.8
<u>Incorporated Areas*</u>									
Hendersonville	6,443	7,240	7,790	8,350	8,970	9,570	10,140	2,900	40.1
Laurel Park	581	660	690	730	770	800	860	200	30.3

\*Note: The population projections for the incorporated areas have been developed for the existing corporate limits. While annexations may occur in the future, no attempt has been made to account for the population which may be added through annexation.

Source: U. S. Census, Fifth Count, 1970  
Land-of-Sky Regional Council

THE INCREASES IN THESE GROUPS ARE EXPECTED TO OCCUR LARGELY BECAUSE OF THE AVAILABILITY OF EMPLOYMENT OPPORTUNITIES WITHIN THE COUNTY AND IN THE SURROUNDING AREAS.

THE ATTRACTIVENESS OF HENDERSON COUNTY TO BOTH THE YOUNG AND THE ELDERLY IS INDICATED BY THE SIGNIFICANT INCREASE WHICH IS EXPECTED TO OCCUR IN THAT SEGMENT OF THE POPULATION WHICH IS 65 YEARS OF AGE OR OLDER. FROM 1975 TO THE YEAR 2000 IT IS EXPECTED THAT THIS AGE GROUP WILL INCREASE BY APPROXIMATELY 2,900 RESIDENTS, AN INCREASE OF 45.8% DURING THE PERIOD. THIS INCREASE IN POPULATION OVER 65 YEARS OF AGE WILL BE CAUSED BY THE INCREASING ROLE OF CERTAIN SECTIONS OF HENDERSON COUNTY AS RETIREMENT COMMUNITIES. THIS DEVELOPMENT WILL ALSO BE AIDED BY THE ADDED SERVICES FOR THE ELDERLY WHICH ARE EXPECTED TO BE AVAILABLE IN THE COUNTY TO THE YEAR 2000.

#### HENDERSON COUNTY EMPLOYMENT

OF THE FOUR COUNTIES COMPRISING REGION B, HENDERSON COUNTY IS EXPECTED TO EXPERIENCE THE FASTEST EMPLOYMENT GROWTH FROM 1974 TO THE YEAR 2000. DURING THIS PERIOD, IT IS ANTICIPATED THAT THE COUNTY WILL INCREASE ITS AT-PLACE EMPLOYMENT BY APPROXIMATELY 12,800 JOBS, A GAIN OF 74% OVER ITS 1974 LEVEL OF 17,300.

AS IN BUNCOMBE COUNTY, THE LARGEST EMPLOYMENT INCREASES ARE EXPECTED TO OCCUR IN HENDERSON COUNTY'S MANUFACTURING SECTOR. FROM 1974 TO 2000, IT IS ANTICIPATED THAT EMPLOYMENT IN THIS SECTOR WILL INCREASE BY APPROXIMATELY 4,260 JOBS, A



GAIN OF 79.6% OVER ITS 1974 FIGURE OF 5,350. (SEE TABLE 21).

OF THIS INCREASE IN MANUFACTURING EMPLOYMENT, BY FAR THE LARGEST PERCENTAGE (92%) IS EXPECTED TO OCCUR IN, AND NEAR, THE I-26/U.S. 25 CORRIDOR. FROM 1974 TO 2000, FOR EXAMPLE, HENDERSONVILLE TOWNSHIP AND HOOPERS CREEK TOWNSHIP ARE EXPECTED TO INCREASE THEIR MANUFACTURING EMPLOYMENT LEVELS BY 2,680 AND 1,220 JOBS RESPECTIVELY. (SEE TABLE 22). IT IS THESE AREAS OF THE COUNTY WHICH ARE PARTICULARLY SUITED TO THE LOCATION OF MANUFACTURING ENTERPRISES DUE TO THE EXISTENCE OF PRIME INDUSTRIAL LAND (INCLUDING SUCH AREAS AS THE CANE CREEK INDUSTRIAL PARK), THE AVAILABILITY OF GOOD TRANSPORTATION ROUTES SUCH AS I-26 AND U.S. 25, AND THE EXISTENCE OF PUBLIC SERVICES.

FOLLOWING THE MANUFACTURING SECTOR IN EMPLOYMENT INCREASES WILL BE THE COUNTY'S SERVICE AND TRADE SECTORS. DURING THE 1974-2000 PERIOD, IT IS EXPECTED THAT THE SERVICE CATEGORY WILL EXPERIENCE THE FASTEST GROWTH OF ANY SECTOR, INCREASING BY 88% DURING THE PERIOD. LARGELY RESPONSIBLE FOR THE INCREASES IN THIS SECTOR WILL BE THE SIGNIFICANT POPULATION GROWTH WHICH IS EXPECTED TO OCCUR IN THE COUNTY TO THE YEAR 2000. WHILE THE COUNTY HAS EXPERIENCED POPULATION INCREASES IN THE PAST, THE POPULATION GAINS WHICH ARE EXPECTED IN THE NEAR FUTURE CAN BE EXPECTED TO RAISE THE COUNTY'S POPULATION TO A LEVEL WHICH WILL CREATE A SIZABLE MARKET FOR BOTH GOODS AND SERVICES WITHIN THE COUNTY. WHILE BUNCOMBE COUNTY, AND PARTICULARLY ASHEVILLE TOWNSHIP, WILL CONTINUE AS THE REGION'S SERVICE CENTER, HENDERSON COUNTY WILL SIGNIFICANTLY INCREASE ITS ROLE AS A SERVICE AND TRADE CENTER, SERVING BOTH HENDERSON

TABLE 21

## TOWNSHIP AT-PLACE EMPLOYMENT, BY SECTOR, HENDERSON COUNTY, 1974-2000

	1974	1980	1985	1990	1995	2000	Change Amount	1974-2000 Percent
<b>Agriculture and Forestry:</b>								
Blue Ridge Twp.	180	180	175	170	165	165	-15	-8.3
Clear Creek Twp.	55	55	55	55	50	50	-5	-9.1
Crab Creek Twp.	35	35	35	30	30	30	-5	-14.3
Edneyville Twp.	225	225	225	225	220	220	-5	-2.2
Green River Twp.	115	110	110	105	105	100	-15	-13.0
Hendersonville Twp.	205	195	185	175	165	155	-50	-24.4
Hoopers Creek Twp.	90	90	85	85	85	80	-10	-11.1
Mills River Twp.	225	225	225	225	220	220	-5	-2.2
Total	1,130	1,115	1,095	1,065	1,040	1,020	-110	-9.7
<b>Manufacturing:</b>								
Blue Ridge Twp.	-	-	-	-	-	-	-	-
Clear Creek Twp.	-	-	-	-	-	-	-	-
Crab Creek Twp.	-	-	85	100	120	135	135	-
Edneyville Twp.	-	-	-	-	-	-	-	-
Green River Twp.	270	305	335	355	385	415	145	53.7
Hendersonville Twp.	4,065	4,655	4,935	5,340	5,985	6,745	2,680	65.9
Hoopers Creek Twp.	960	1,335	1,530	1,715	1,930	2,180	1,220	127.1
Mills River Twp.	55	65	85	105	120	135	80	145.5
Total	5,350	6,360	6,970	7,615	8,540	9,610	4,260	79.6
<b>Trade:</b>								
Blue Ridge Twp.	120	135	140	145	160	175	55	45.8
Clear Creek Twp.	75	90	95	105	115	130	55	73.3
Crab Creek Twp.	35	45	50	55	65	80	45	128.6
Edneyville Twp.	60	80	90	100	120	135	75	125.0
Green River Twp.	85	100	105	110	125	140	55	64.7
Hendersonville Twp.	2,305	2,720	2,930	3,210	3,670	4,175	1,870	81.1
Hoopers Creek Twp.	165	205	230	260	300	345	180	109.1
Mills River Twp.	145	170	185	205	235	270	125	86.2
Total	2,990	3,545	3,825	4,190	4,790	5,450	2,460	82.3
<b>Services:</b>								
Blue Ridge Twp.	80	95	100	105	115	125	45	56.3
Clear Creek Twp.	40	50	55	60	65	75	35	87.5
Crab Creek Twp.	475	565	620	685	795	910	435	91.6
Edneyville Twp.	125	140	155	170	190	215	90	72.0
Green River Twp.	155	180	195	215	240	270	115	74.0
Hendersonville Twp.	1,650	1,955	2,140	2,385	2,755	3,170	1,520	92.1
Hoopers Creek Twp.	220	260	285	315	355	410	190	86.4
Mills River Twp.	185	220	235	260	295	335	150	81.1
Total	2,930	3,465	3,785	4,195	4,810	5,510	2,580	88.1
<b>Other:</b>								
Blue Ridge Twp.	30	45	55	75	90	100	70	233.3
Clear Creek Twp.	15	25	30	40	60	70	55	366.7
Crab Creek Twp.	10	25	35	55	70	85	75	750.0
Edneyville Twp.	20	25	40	45	70	85	65	325.0
Green River Twp.	25	40	50	60	85	100	75	300.0
Hendersonville Twp.	4,680	5,425	5,745	6,195	6,890	7,710	3,030	65.7
Hoopers Creek Twp.	95	130	155	180	225	265	170	178.9
Mills River Twp.	45	60	70	80	90	105	60	133.3
Total	4,920	5,775	6,180	6,730	7,580	8,520	3,600	73.2

Source: Land-of-Sky Regional Council.

TABLE 22

## AT-PLACE EMPLOYMENT (BY SECTOR), HENDERSON COUNTY, 1974-2000

	<u>1974</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>Change Amount</u>	<u>1974-2000 PerCent</u>
Agriculture and Forestry	1,130	1,115	1,095	1,065	1,040	1,020	-110	-9.7
Manufacturing	5,350	6,360	6,970	7,615	8,540	9,610	4,260	79.6
Trade	2,990	3,545	3,825	4,190	4,790	5,450	2,460	82.3
Service	2,930	3,465	3,785	4,195	4,810	5,510	2,580	88.1
Other	4,920	5,775	6,180	6,730	7,580	8,520	3,600	73.2
Total	17,320	20,260	21,855	23,795	26,760	30,110	12,790	73.8

Source: Land-of-Sky Regional Council

COUNTY AND NORTHERN TRANSYLVANIA COUNTY.

AS STATED EARLIER, THE LOCATION OF TRADE AND SERVICE ESTABLISHMENTS WITHIN AN AREA IS LARGELY DEPENDENT UPON THE POPULATION LEVELS OF THE PARTICULAR AREA (I.E., THE MARKET), AND THE TIME/DISTANCE ACCESS FROM EACH POPULATION CENTER TO EACH PARTICULAR TRADE AND SERVICE CENTER. IN LINE WITH THIS PRINCIPLE, IT IS EXPECTED THAT THE LARGEST INCREASES IN THE TRADE AND SERVICE SECTORS WILL OCCUR IN THE HENDERSONVILLE TOWNSHIP AREA. IT IS THIS AREA OF THE COUNTY WHICH IS ALSO EXPECTED TO EXPERIENCE THE GREATEST POPULATION GROWTH OF ANY TOWNSHIP WITHIN THE COUNTY. IN THE 1974 TO 2000 PERIOD, IT IS EXPECTED THAT HENDERSONVILLE TOWNSHIP WILL INCREASE ITS SERVICE AND TRADE EMPLOYMENT BY 1,520 (92.1%) AND 1,870 (31.1%) RESPECTIVELY.

THE "OTHER EMPLOYMENT" CLASSIFICATION, COMPOSED OF SUCH EMPLOYMENT CATEGORIES AS FINANCE, INSURANCE AND REAL ESTATE; TRANSPORTATION, COMMUNICATIONS AND UTILITIES; CONSTRUCTION; AND GOVERNMENT IS EXPECTED TO EXPERIENCE EMPLOYMENT INCREASES OF APPROXIMATELY 3,600 JOBS, OR 73.2%, FROM 1974 TO 2000.

FOLLOWING THE LOCATION PATTERN OF THE TRADE AND SERVICE SECTOR, THE LARGEST PERCENTAGE OF THIS EMPLOYMENT GROWTH WILL OCCUR IN HENDERSONVILLE TOWNSHIP. IT IS THIS AREA WHICH IS THE COUNTY'S FINANCIAL AND GOVERNMENTAL CENTER AND IN WHICH AN INCREASE IN CONSTRUCTION EMPLOYMENT IS EXPECTED TO OCCUR AS DEVELOPMENT CONTINUES. AS IN BUNCOMBE COUNTY, THE EMPLOYMENT INCREASES IN THIS SECTOR WHICH ARE EXPECTED TO OCCUR IN SURROUNDING TOWNSHIPS WILL BE DUE PRIMARILY



TO INCREASED CONSTRUCTION ACTIVITY WHICH WILL ACCOMPANY POPULATION GROWTH.

FOLLOWING THE REGIONAL TREND, THE AGRICULTURAL SECTOR OF THE COUNTY'S ECONOMY IS EXPECTED TO DECLINE IN EMPLOYMENT TO THE YEAR 2000. WHILE THIS SECTOR WILL EXPERIENCE EMPLOYMENT DECLINES, IT SHOULD BE NOTED THAT THE EMPLOYMENT DECLINE OF 9.7% REPRESENTS THE SMALLEST DECLINE OF ANY AGRICULTURE AND FORESTRY SECTOR IN THE REGION. THIS SMALL DECLINE IN AGRICULTURAL EMPLOYMENT TO THE YEAR 2000 IS A PRIME INDICATION OF THE STABILITY OF THE AGRICULTURAL SECTOR OF THE HENDERSON COUNTY ECONOMY.

#### SUMMARY

HENDERSON COUNTY IS EXPECTED TO EXPERIENCE THE FASTEST GROWTH OF ANY COUNTY IN THE REGION B AREA. THE COUNTY WILL EXPERIENCE SIGNIFICANT POPULATION AND AT-PLACE EMPLOYMENT GROWTH DURING THE PERIOD 1975-2000. IN 1970, 1,052 HENDERSON COUNTY RESIDENTS COMMUTED TO TRANSYLVANIA COUNTY TO THEIR PLACE OF EMPLOYMENT. AS ADDITIONAL JOB GROWTH OCCURS IN HENDERSON COUNTY, IT CAN BE EXPECTED THAT THIS RELATIONSHIP WILL CHANGE AS HENDERSON COUNTY BEGINS TO EXPERIENCE IN-COMMUTING BY 1985.

FROM 1974 TO 2000 IT IS EXPECTED THAT THE LABOR FORCE PARTICIPATION RATES OF THE UNDER 18 AND 18-64 AGE GROUPS WILL INCREASE IN EACH COUNTY WITHIN THE REGION. IN HENDERSON COUNTY IT IS EXPECTED THAT THE LABOR FORCE PARTICIPATION IN THE OVER 65 AGE GROUP WILL DECLINE DUE TO THE SIGNIFICANT NUMBER OF RETIREES WHICH ARE EXPECTED TO LIVE IN THESE AREAS.



WHILE THE POPULATION AND EMPLOYMENT GAINS WILL PRESENT MANY OPPORTUNITIES TO HENDERSON COUNTY, THE EXPECTED GROWTH WILL ALSO BRING MANY CHALLENGES. IN RECENT YEARS THERE HAS DEVELOPED AN INCREASING AWARENESS THAT GROWTH BRINGS COSTS AS WELL AS BENEFITS.

IN 1973 THE U. S. CHAMBER OF COMMERCE CONDUCTED A STUDY TO DETERMINE THE BENEFITS AND BURDENS THAT ONE HUNDRED NEW FACTORY WORKERS BRING TO A COMMUNITY. THE RESULTS OF THE STUDY ARE AS FOLLOWS:

- 296 more people
- 112 more households
- 174 additional workers employed
- 107 more registered passenger cars
- \$3,600,000 more in annual retail sales
- \$590,000 more in personal income
- \$270,000 more in bank deposits

IN STUDYING THE BURDENS IMPOSED BY THE SAME AMOUNT OF ADDITIONAL WORKERS, THE CHAMBER OF COMMERCE ESTIMATED:

- about 100 new children in school (50 in grade school, 50 junior high and 25 in senior high). This situation in turn creates a need for:
- two new grade school rooms and one new room at the junior high school and high school at a cost of \$925,000 (1973 figure)
- four new school teachers
- one acre for grade school needs
- one acre for playgrounds

IN ADDITION, THE COMMUNITY WILL NEED:

- one additional employee in the police department and \$4,510 additional in operating budget
- one new fireman and additional increase of \$2,820 in the budget
- the water department will have to pump about 60,000 additional gallons daily

WHILE THE COSTS AND BENEFITS ASSOCIATED WITH GROWTH IN HENDERSON COUNTY WILL BE DIFFERENT FROM THOSE LEVELS CITED IN THE CHAMBER'S STUDY, IT IS IMPORTANT FOR THE CITIZENS OF HENDERSON COUNTY TO BE AWARE OF THE CONSEQUENCES OF THE GROWTH WHICH IS EXPECTED TO OCCUR WITHIN THE COUNTY AND THE ACTION WHICH CAN BE TAKEN TO AVOID THESE ADVERSE EFFECTS.

OF ALL THE EFFECTS WHICH CAN BE EXPECTED TO OCCUR AS A RESULT OF THE COUNTY'S GROWTH, PERHAPS THE MOST DIRECT AND IMMEDIATE CONCERN IS THE COUNTY'S LAND RESOURCES. AS POPULATION AND EMPLOYMENT OPPORTUNITIES EXPAND, AN INCREASING AMOUNT OF THE COUNTY'S LAND AREA WILL BE CONSUMED FOR SUCH URBAN USES AS HOUSING, TRANSPORTATION FACILITIES, INDUSTRIAL SITES, RECREATION AREAS, ETC. THE MAGNITUDE AND DIRECTION OF THIS GROWTH ASSUMES ADDED IMPORTANCE WHEN CONSIDERING THE FRAGILE AND UNIQUE NATURE OF A SIGNIFICANT AMOUNT OF THE COUNTY'S LAND AREA. IT IS WELL-KNOWN, FOR EXAMPLE, THAT THE COUNTY'S MOUNTAINS CONTAIN MANY ENVIRONMENTALLY SENSITIVE AREAS INCLUDING FISH AND WILDLIFE HABITATS, PLANT HABITATS AND UNIQUE GEOLOGICAL AND SCENIC AREAS. IT IS THESE AREAS, WITH THEIR UNIQUE AND NATURAL FEATURES, WHICH MAY BE PARTICULARLY SUSCEPTIBLE TO THE DANGERS OF UNCONTROLLED DEVELOPMENT. BECAUSE OF THEIR UNIQUE FEATURES, THESE FRAGILE MOUNTAIN AREAS ARE OFTEN CONSIDERED AS PRIME LOCATIONS FOR SECOND-HOME DEVELOPMENT. FOR THESE REASONS, EXTREME CARE MUST BE TAKEN IN ORDER TO PREVENT IRREVERSIBLE ENVIRONMENTAL DAMAGE TO SENSITIVE ECOLOGICAL AREAS.

JUST AS CARE MUST BE TAKEN TO AVOID THE HARMFUL EFFECTS

OF DEVELOPMENT IN THE COUNTY'S MOUNTAINS, SO TOO MUST CARE BE TAKEN TO AVOID THE POTENTIALLY UNDESIRABLE EFFECTS OF GROWTH ON THE COUNTY'S MOST PRODUCTIVE AGRICULTURAL LANDS. IT IS WELL-KNOWN, FOR EXAMPLE, THAT URBAN DEVELOPMENT IS STRONGLY ATTRACTED TO PRIME AGRICULTURAL LANDS SINCE THE PHYSIOGRAPHIC CHARACTERISTICS OF THESE AREAS MAKE THEM WELL-SUITED FOR URBAN DEVELOPMENT ACTIVITIES. FOR THESE REASONS, IT IS PARTICULARLY IMPORTANT FOR THE CITIZENS OF THE COUNTY TO DETERMINE WHETHER THE COUNTY'S PRODUCTIVE AGRICULTURAL LANDS SHOULD BE DEVOTED TO AGRICULTURAL ACTIVITIES OR BE CONSIDERED AS PRIME LOCATIONS FOR URBAN DEVELOPMENT. ONLY AFTER THIS DECISION IS MADE, CAN POLICIES BE DEVELOPED TO INSURE THE WISEST AND BEST USE OF THESE PARTICULAR LANDS IN LINE WITH THE DESIRES OF THE COUNTY'S CITIZENS.

ALTHOUGH GROWTH IS OFTEN SEEN AS A MEANS OF INCREASING AN AREA'S TAX BASE, THE ADDITIONAL BURDENS IMPOSED ON THE LOCALITY'S PUBLIC SERVICE DELIVERY SYSTEMS ARE OFTEN OVERLOOKED. AS POPULATION INCREASES WITHIN THE COUNTY, FOR EXAMPLE, IT CAN BE EXPECTED THAT ADDITIONAL AND IMPROVED PUBLIC SERVICES WILL BE REQUIRED. AMONG THE SERVICES WHICH MAY BE REQUIRED ARE: ADDITIONAL DAY CARE FACILITIES, ADDITIONAL RECREATION AND OPEN SPACE OPPORTUNITIES, AND EXPANDED MASS TRANSPORTATION ALTERNATIVES. IT IS THE COSTS OF SERVICES SUCH AS THOSE MENTIONED ABOVE WHICH MUST BE CONSIDERED IN DETERMINING THE DESIRABILITY OF THE COUNTY'S FUTURE GROWTH LEVELS. IN CONSIDERATION OF THESE COSTS, VARIOUS PATTERNS OF DEVELOPMENT AND THEIR POSSIBLE EFFECTS ON THE PROVISIONS

OF THESE SERVICES MUST ALSO BE CONSIDERED. IN THIS WAY, DEVELOPMENT PATTERNS CAN BE ENCOURAGED WHICH MAY LESSEN THE COSTS OF PROVIDING THE ABOVE-MENTIONED SERVICES TO THE COUNTY'S CITIZENS.

IT HAS BEEN THE PURPOSE OF THIS CHAPTER TO PRESENT A BRIEF DISCUSSION OF THE IMPLICATIONS OF THE GROWTH WHICH CAN BE EXPECTED TO OCCUR WITHIN THE COUNTY TO THE YEAR 2000. WHILE THIS CHAPTER HAS FOCUSED ON THE POSSIBLE EFFECTS OF GROWTH ON THE COUNTY'S MOUNTAIN AREAS, AGRICULTURAL LANDS AND PUBLIC SERVICE DELIVERY SYSTEMS, IT IS OVBIOUS THAT THE IMPLICATIONS OF GROWTH EXTEND FAR BEYOND THESE THREE AREAS. DESPITE THIS BRIEF DISCUSSION OF THE IMPLICATIONS OF GROWTH, LARGER QUESTIONS REMAIN TO BE ANSWERED BY THE COUNTY'S CITIZENS AND PUBLIC OFFICIALS. QUESTIONS THAT ARISE WITH POPULATION GROWTH INVOLVE SUCH CONCERNS AS THE EFFECT OF GROWTH ON THE COUNTY'S TRADITIONAL RURAL LIFESTYLE AND MOUNTAIN CULTURE, AND THE ACTUAL COSTS OF PROVIDING PUBLIC SERVICES TO ACCOMMODATE THE INCREASED POPULATION OF THE COUNTY. A BASIC QUESTION TO BE ANSWERED BY THE COUNTY CITIZENS, HOWEVER, IS "IS THE LEVEL OF POPULATION AND EMPLOYMENT GROWTH PROJECTED TO THE YEAR 2000 DESIRABLE FOR THE COUNTY AND BY WHAT MEANS CAN IT BE CONTROLLED IN ORDER THAT THE POTENTIALLY HARMFUL EFFECTS OF GROWTH CAN BE AVOIDED?" IT WILL BE REMEMBERED THAT IN THE DEVELOPMENT OF THE PROJECTIONS, NO POLICIES WHICH MIGHT RESTRICT FUTURE GROWTH WERE CONSIDERED. RATHER, IT WAS ASSUMED THAT GROWTH WOULD CONTINUE AS IN THE PAST. IT NOW REMAINS FOR THE RESIDENTS



OF THE COUNTY TO DETERMINE THE FUTURE OF THE AREA THROUGH THE FORMULATION OF GOALS AND POLICIES WHICH WILL ASSURE THAT DEVELOPMENT WITHIN THE COUNTY OCCURS IN LINE WITH THE DESIRES OF THE COUNTY'S RESIDENTS AND IN A MANNER WHICH WILL NOT ADVERSELY AFFECT THE COUNTY'S FUTURE.

SOURCE:

LAND-OF-SKY REGIONAL COUNCIL, POPULATION AND EMPLOYMENT  
STUDY, AUGUST, 1976.



## CHAPTER 5

### TRANSPORTATION

#### GENERAL

THE LOCATION OF THE ROADS AND HIGHWAYS IN HENDERSON COUNTY HAS IN THE PAST AND IN ALL PROBABILITY WILL CONTINUE IN THE FUTURE TO DICTATE RESIDENTIAL SETTLEMENT PATTERNS AND INFLUENCE, IF NOT DICTATE THE LOCATION OF COMMERCIAL AND INDUSTRIAL BUSINESSES IN THE COUNTY.

THE SHAPE AND FORM HENDERSON COUNTY WILL TAKE AND HOW FUTURE CHANGES WILL ENTER THE PLANNING PROCESS IS NOT ALWAYS CLEAR, BUT TRANSPORTATION PLANS MUST CONSIDER ALL ACTIVITIES THAT WILL GENERATE TRAFFIC. VARIOUS ASPECTS OF TRANSPORTATION PLANNING, BOTH PRESENT AND FUTURE, MUST BE CLOSELY COORDINATED IF ALL PARTS ARE TO BLEND TOGETHER FOR MORE EFFICIENT AND SAFER MOVEMENT OF PEOPLE WITHIN HENDERSON COUNTY.

TO DATE NO TRANSPORTATION OBJECTIVES HAVE BEEN ADOPTED FOR HENDERSON COUNTY. LOCAL TRANSPORTATION OBJECTIVES SHOULD BE ESTABLISHED FOR THE COUNTY AS A REFLECTION OF THE DESIRES OF THE CITIZENS OF THE COUNTY. TRANSPORTATION FACILITIES MUST BE PLANNED TO SERVE PEOPLE AND TRANSPORTATION PLANNING OBJECTIVES MUST BE STATED IN TERMS OF DESIRES TO BE FULFILLED INSTEAD OF SYSTEMS TO BE PLANNED.

THE LAND-OF-SKY REGIONAL COUNCIL--REGION B, OF WHICH HENDERSON COUNTY IS A MEMBER GOVERNMENT, HAS ADOPTED REGIONAL TRANSPORTATION OBJECTIVES.

THE FOLLOWING ARE OBJECTIVES ADOPTED BY THE LAND-OF-SKY

## REGIONAL COUNCIL AS A BASIS FOR ITS TRANSPORTATION PLANNING PROGRAM:

1. A transportation circulation system that is compatible with the Land Use Plan for the Region and each county.  
The plan should define a functional heirarchy of streets and highways as determined by their location, traffic characteristics, volume and function in relation to the general circulation system. It must provide for the safe, convenient and economical movement of people and goods between places of residence, employment, shopping and recreation.
2. Major thoroughfares designed and regulated to insure a free flow of traffic and to protect the traffic-carrying capacity of the Region's principal highways.
3. A program to systematically upgrade substandard streets and roads throughout the Region which are deemed necessary to provide needed transportation services. A program to provide for the formation of pedestrian and bikeways to establish and to protect needed future rights-of-way should be cooperatively developed by state and local governments.
4. Local government input in the process of determining state highway improvement and maintenance of priorities within their repsective areas of jurisdiction should be maximized. Efforts should be undertaken to improve communications between local, regional and state agencies.

THESE OBJECTIVES SHOULD BE CONSIDERED IN THE FORMULATION OF OBJECTIVES FOR HENDERSON COUNTY TRANSPORTATION PLANNING. ALTHOUGH REGIONAL IN NATURE, THESE OBJECTIVES ADDRESS THEMSELVES TO LOCAL PROBLEMS. AN IMPORTANT PRINCIPAL IN DETERMINING LOCAL TRANSPORTATION OBJECTIVES IS TO AVOID STATEMENTS THAT SPECIFY MEANS TO BE ADOPTED. THE DESIRES AND NEEDS OF LOCAL CITIZENS SHOULD BE THE DETERMINING FACTOR IN PLANNING TRANSPORTATION FACILITIES FOR THE COUNTY.

TRANSPORTATION PLANNING, ESPECIALLY IN RURAL COMMUNITIES, OFTEN STARTS WITH THE IDENTIFICATION OF PRESENT PROBLEMS AND FACTORS THAT AFFECT THE TRANSPORTATION PLANNING PROCESS.

MAJOR CONSTRAINTS WITHIN HENDERSON COUNTY THAT AFFECT THE TRANSPORTATION PLANNING PROCESS ARE SOILS, TOPOGRAPHY, RIVERS AND THEIR TRIBUTARIES, NATIONAL FOREST LAND, EXISTING TRANSPORTATION FACILITIES, SETTLEMENT PATTERNS AND THE PRESENT SYSTEM OF STATE MAINTENANCE, AND CONTROL OF ROADS IN HENDERSON AND ALL COUNTIES OF NORTH CAROLINA.

#### PHYSICAL AND MAN-MADE FACTORS AFFECTING TRANSPORTATION

THE PHYSICAL CHARACTERISTICS WHICH MOST AFFECT TRANSPORTATION IN HENDERSON COUNTY ARE THE TOPOGRAPHY, SOILS, AND RIVERS AND THEIR TRIBUTARIES.

IT IS EASY TO UNDERSTAND THE DIFFICULTY IN CONSTRUCTING TRANSPORTATION FACILITIES ALONG RIVER BASINS SUCH AS THE FRENCH BROAD OR IN CROSSING MOUNTAIN RANGES WHICH ARE LOCATED IN THE COUNTY. THE PISGAH NATIONAL FOREST OCCUPIES AN AREA IN THE NORTHWEST CORNER OF THE COUNTY THAT IS RELATIVELY

SMALL, BUT DOES PRESENT A RESTRAINT TO TRANSPORTATION IN THAT PORTION OF THE COUNTY.

STEEP SLOPES, POOR SOILS AND AREAS SUBJECT TO FLOODING OFFER POOR CONDITIONS FOR CONSTRUCTION OF TRANSPORTATION FACILITIES.

INTERSTATE 26 IS A MAN-MADE RESTRAINT INFLUENCING TRANSPORTATION FACILITIES IN HENDERSON COUNTY. TRAVERSING THE COUNTY NORTHWEST TO SOUTHEAST FOR SOME 13 MILES, THE INTERSTATE OFFERS A MEANS OF TRAVELING THROUGH HENDERSON COUNTY WITH EASE AND RELATIVELY HIGH SPEED. IT OFFERS THE LOCAL CITIZEN AN ALTERNATIVE FOR TRAVELING TO LARGER CITIES SUCH AS ASHEVILLE OR GREENVILLE, BUT DOES LITTLE TO ALLEVIATE LOCAL TRANSPORTATION PROBLEMS.

INTERSTATE 26 VIRTUALLY DIVIDES THE COUNTY IN HALF WITH ONLY U.S. 64 AND U.S. 25 AS MAJOR CONNECTING ROADS TO THE TWO HALVES. TO CONSTRUCT ADDITIONAL ROADS EITHER OVER OR UNDER I-26 WOULD BE COSTLY AND TIME CONSUMING. MANY STATE SECONDARY ROADS CONNECT THE TWO HALVES, BUT MAY AT SOME TIME REQUIRE WIDENING TO SERVE THE EXPECTED POPULATION GROWTH IN HENDERSON COUNTY.

URBAN AREAS SUCH AS HENDERSONVILLE INFLUENCE THE TRANSPORTATION PATTERN IN HENDERSON COUNTY AS WELL. FUTURE TRANSPORTATION PLANS MUST CONTEND WITH THE SETTLEMENT PATTERNS AROUND HENDERSONVILLE AND ADDRESS THEMSELVES TO THE PROBLEMS ASSOCIATED WITH THEM. SLOW MOVEMENT OF TRAFFIC ALONG 64-25-191 APPROACHING HENDERSONVILLE, THE INAVAILABILITY OF NEW ROAD SYSTEMS TO EFFECTIVELY TRAVERSE THESE CONGESTED AREAS,



COMMERCIAL DEVELOPMENT ALONG THESE MAJOR HIGHWAYS WHICH DICTATES LAND USE AND RESTRAINS TRAFFIC FLOW, CAUSING MULTIPLE TRAFFIC PROBLEMS IN THE HENDERSONVILLE-FLETCHER AREA.

POPULATION GROWTH IN HENDERSON COUNTY IS ANOTHER FACTOR IN TRANSPORTATION PLANNING. THE ABILITY OF MOST FAMILIES TO OWN 1, 2 OR EVEN 3 CARS HAS CREATED TRANSPORTATION PROBLEMS UNFORSEEN 10 YEARS AGO.

VEHICLE REGISTRATION IN HENDERSON COUNTY HAS INCREASED FROM 19,058 IN 1963 TO 33,137 IN 1973. A 73.8% INCREASE IN 10 YEARS. ROADS BUILT IN THE 40'S, 50'S AND 60'S ARE EXPECTED TO HANDLE VEHICLE TRAFFIC OF THE 1970'S. THIS PRESENTS PROBLEMS RELATED TO TRAFFIC FLOW AND REINFORCES THE NEED FOR MORE LOCAL HIGHWAY IMPROVEMENT AND NEW ROADS. IN 1970, 86% OF THE HOUSEHOLDS IN HENDERSON COUNTY OWNED 1 OR MORE AUTOMOBILES, WITH 36% OWNING 2 OR MORE.

AREAS OF LARGE RESIDENTIAL DEVELOPMENT AND HIGH FAMILY INCOME WILL FEEL THE NEED FOR MORE ADEQUATE TRANSPORTATION FACILITIES THAN LESSER DEVELOPED AREAS. THE CONCENTRATION OF AUTOS IN CERTAIN AREAS WILL EXERT MORE PRESSURE FOR IMPROVED HIGHWAY SYSTEMS IF NOT NEW ONES. MILLS RIVER TOWNSHIP WITH 10% OF THE COUNTY POPULATION, CONTAINS THE PISGAH NATIONAL FOREST LANDS; BLUE RIDGE TOWNSHIP WITH 7% OF THE POPULATION HAS A MOUNTAINOUS, DEEPLY SLOPING LAND. HENDERSONVILLE TOWNSHIP WITH 59% OF THE POPULATION EXPERIENCES ALL THE PROBLEMS OF URBAN CONGESTION AND OVER-LOADED, INADEQUATE TRANSPORTATION SYSTEMS. HOOPER'S CREEK TOWNSHIP WITH 9% OF



TABLE 23  
VEHICLE REGISTRATION IN REGION B BY COUNTIES

COUNTY	1963	1968	1973	% CHANGE 1968-1973	% CHANGE 1963-1973
BUNCOMBE	58,052	75,400	94,833	25.8	63.4
HENDERSON	19,058	25,000	33,137	32.5	73.8
MADISON	5,788	7,200	8,813	22.4	52.2
TRANSYLVANIA	7,173	9,800	12,798	30.6	78.4
REGION B	90,071	117,400	149,581	27.4	66.1

SOURCE: U. S. CENSUS, 1970

TABLE 24  
AUTOMOBILE OWNERSHIP BY HOUSEHOLD IN REGION B, 1970

COUNTY	# OF HOUSEHOLDS	% OF HOUSEHOLDS WITH 1 OR MORE AUTOS	% OF HOUSEHOLDS WITH 2 OR MORE AUTOS
BUNCOMBE	47,248	82.2	35.9
HENDERSON	14,195	86.1	36.8
MADISON	4,960	75.0	26.5
TRANSYLVANIA	5,906	88.0	43.9
REGION B	72,309	82.0	36.2

SOURCE: U. S. CENSUS, 1970

TABLE 25  
CHARACTERISTICS OF VEHICLE OWNERSHIP IN HENDERSON COUNTY

TOWNSHIPS	NUMBER OF HOUSEHOLDS WITH 2 OR MORE AUTOS	% OF TOTAL COUNTY HOUSEHOLDS	FAMILIES WITH IN- COMES MORE THAN \$10,000	% OF TOTAL FAMILIES WITH IN- COMES MORE THAN \$10,000
BLUE RIDGE	393	2.8	178	1.3
CLEAR CREEK	188	1.3	110	.8
CRAB CREEK	144	1.0	40	.28
EDNEYVILLE	204	1.4	106	.8
GREEN RIVER	241	1.7	136	.9
HENDERSONVILLE	3,149	22.2	2,403	16.9
HOOPERS CREEK	298	2.0	67	.47
MILLS RIVER	613	4.3	335	2.3
HENDERSON COUNTY	5,230	(36.8)*	3,375	(23.8)*

SOURCE: U. S. CENSUS, 1970

\*PERCENTAGES IN PARENTHESES ARE PERCENT OF REGIONAL TOTALS, WHICH ARE 26,159 FOR HOUSEHOLDS WITH 2 OR MORE AUTOS AND 18,676 FOR FAMILIES WITH INCOMES MORE THAN \$10,000.

THE POPULATION HAS URBAN CONGESTION AND STRIP DEVELOPMENT OCCURRING IN THE FLETCHER AREA ON U.S. 25 ALONG WITH I-26 LOCATED TO THE WEST. CANE CREEK INDUSTRIAL PARK, LOCATED IN HOOPER'S CREEK, WILL CERTAINLY CREATE TRAFFIC PROBLEMS IN THAT AREA THAT WILL EXERT PRESSURE FOR MUCH NEEDED NEW FACILITIES AND IMPROVEMENTS TO EXISTING FACILITIES. UNCONTROLLED GROWTH ALONG U.S. 25 FROM THE BUNCOMBE-HENDERSON COUNTY LINE

HAS AND WILL CONTINUE TO PLACE UNNECESSARY BURDENS ON THE TRANSPORTATION SYSTEM. UNCONTROLLED COMMERCIAL AND INDUSTRIAL DEVELOPMENT ALONG U.S. 25 HAS OUTGROWN HIGHWAY ABILITY TO HANDLE THE TRAFFIC BETWEEN ASHEVILLE AND HENDERSONVILLE. THERE SEEMS TO BE NO RELIEF IN SIGHT WITH NEW INDUSTRIAL DEVELOPMENT OCCURRING IN THAT AREA.

### EXISTING TRANSPORTATION FACILITIES

SEVERAL ELEMENTS OF THE ROAD SYSTEM IN HENDERSON COUNTY WILL BE SURVEYED. THESE INCLUDE TRAFFIC COUNTS (AADT), PAVEMENT WIDTH, COMMUTING PATTERNS AND THE STATE FUNCTIONAL CLASSIFICATION SYSTEM.

ANNUAL AVERAGE DAILY TRAFFIC FLOW (AADT) IS THE MOST COMMON MEANS USED IN REPORTING THE TRAFFIC ON A GIVEN ROAD OR HIGHWAY. SOME HIGHWAYS IN HENDERSON COUNTY WITH OVER A 5,000 COUNT ARE U.S. 64, U.S. 176, U.S. 25, I-26 AND N.C. 191. THE RANGE IN HENDERSON COUNTY ON MAJOR ROADS AND HIGHWAYS IS FROM APPROXIMATELY 400 ON N.C. 9 TO OVER 20,500 ON U.S. 25.

THE INFORMATION GATHERED ON THE AADT IS USED BY THE DEPARTMENT OF TRANSPORTATION TO SET PRIORITIES CONCERNING PAVING, WIDENING OR OTHER TYPES OF IMPROVEMENTS NEEDED IN ORDER THAT THE ROADS CAN ADEQUATELY HANDLE INCREASED TRAFFIC.

### FUNCTIONAL CLASSIFICATION SYSTEM

IN 1964 THE UNITED STATES DEPARTMENT OF TRANSPORTATION BEGAN A PROGRAM OF CLASSIFICATION OF ALL THE NATION'S PUBLIC ROADS AND STREETS ACCORDING TO THEIR FUNCTION. THE N. C.

DEPARTMENT OF TRANSPORTATION HAS ADOPTED THIS SYSTEM FOR THEIR OWN ROADWAY NETWORK.

THE STATE'S FUNCTIONAL CLASSIFICATION OF ROADS IS SEPARATED INTO THE FOLLOWING CATEGORIES:

1. PRINCIPAL ARTERIALS - THESE HIGHWAYS PROVIDE THE PRIMARY CONNECTION BETWEEN MAJOR CITIES OF OVER 10,000 POPULATION AND OTHER MAJOR TRAFFIC DESTINATIONS. AVERAGE TRIP LENGTHS ARE LONG; CONSEQUENTLY, THE EMPHASIS IS ON SPEED AND MOBILITY RATHER THAN LAND ACCESS. INTER-STATE HIGHWAYS ARE THE PRIME EXAMPLE OF PRINCIPAL ARTERIALS. IDEALLY, ALL ARTERIALS SHOULD HAVE THE FEATURES OF THE INTERSTATE SYSTEM, BUT THIS IS NOT PRACTICAL FROM AN ECONOMIC STANDPOINT.
2. MINOR ARTERIALS - THESE HIGHWAYS SUPPLEMENT THE PRINCIPAL PROVIDING SERVICE TO ALL OTHER CITIES OF MORE THAN 1000 POPULATION. GENERALLY, TRIPS ARE FEWER AND SHORTER IN LENGTH THAN FOR MAJOR ARTERIALS. MAJOR COUNTY-TO-COUNTY MOVEMENTS NOT SERVED BY PRINCIPAL ARTERIALS ARE SERVED BY MINOR ARTERIALS. THE EMPHASIS IS STILL ON TRAFFIC MOBILITY, BUT THE LOWER TRAFFIC VOLUMES DO ALLOW SOME LAND ACCESS. NORMALLY, TWO TRAFFIC LANES ARE ADEQUATE, BUT SOME FOUR-LANING IS NEEDED IN OR NEAR CITIES.
3. COLLECTORS - THESE HIGHWAYS SERVE THE MAJOR TRIP MOVEMENTS WITHIN A SINGLE COUNTY AND, IN SOME CASES, BETWEEN ADJACENT COUNTIES. AVERAGE TRIP LENGTHS ARE MUCH SHORTER THAN THOSE ON ARTERIAL HIGHWAYS. EMPHASIS FOR THIS SYSTEM IS ON SAFE TRAFFIC OPERATION RATHER THAN SPEED. THESE ROUTES INCLUDE THOSE U.S. AND N.C. NUMBERED ROUTES WHICH ARE NOT DESIGNATED ARTERIALS AND MOST MAJOR SECONDARY ROADS.

THE IMPROVEMENTS NEEDED FOR THIS SYSTEM ARE MINOR COMPARED TO ARTERIAL ROUTES. THE TWO TYPES OF COLLECTORS ARE:

- A. MAJOR COLLECTOR ROADS - THESE ROUTES SHOULD:
  - 1) PROVIDE SERVICES TO ANY COUNTY SEAT NOT ON AN ARTERIAL ROUTE, TO THE LARGER TOWNS NOT DIRECTLY SERVED BY THE HIGHER CLASSIFICATIONS; AND TO OTHER TRAFFIC GENERATORS OF EQUIVALENT INTRA-COUNTY IMPORTANCE, SUCH AS CONSOLIDATED SCHOOLS, SHIPPING POINTS, COUNTY PARKS, IMPORTANT MINING AND AGRICULTURAL AREAS, ETC.;
  - 2) LINK THESE PLACES WITH NEARBY LARGER TOWNS OR CITIES, OR WITH ROUTES OF HIGHER CLASSIFICATION; AND



3) SERVE THE MORE IMPORTANT INTRA-COUNTY TRAVEL CORRIDORS.

B. MINOR COLLECTOR ROADS - THESE ROUTES SHOULD:

1) BE SPACED AT INTERVALS, CONSISTENT WITH POPULATION DENSITY, TO COLLECT TRAFFIC FROM LOCAL ROADS AND BRING ALL DEVELOPED AREAS WITHIN A REASONABLE DISTANCE OF A COLLECTOR ROAD:

2) PROVIDE SERVICE TO THE REMAINING SMALLER COMMUNITIES; AND

3) LINK THE LOCALLY IMPORTANT TRAFFIC GENERATORS WITH THE RURAL AREAS.

4. LOCALS - THESE ARE THE REMAINING ROADS IN RURAL AND URBAN AREAS WHOSE FUNCTION IS TO PROVIDE ACCESS TO THE ADJUTING LAND. THESE FACILITIES DELIVER TRAFFIC TO COLLECTORS OR DISPURSE TRAFFIC AWAY FROM ROADS POSSESSING A HIGHER CLASSIFICATION.

5. URBAN THOROUGHFARES - THIS CLASSIFICATION IS COMPOSED OF A BASIC SYSTEM OF STREETS WITHIN AN URBAN AREA THAT MOVE TRAFFIC. THE RESPONSIBILITY FOR PROVIDING FOR THE NECESSARY IMPROVEMENTS IS SHARED BY THE STATE AND THE CITIES, WITH THE STATE ASSUMING A PERCENTAGE OF THE COSTS ON THE MORE IMPORTANT ONES.

HENDERSON COUNTY'S FUNCTIONAL CLASSIFIED ROADS TOTAL 752 MILES. OF THIS TOTAL MILEAGE, 7% IS INTERSTATE, OR ARTERIAL ROADS, AND 21% IS MAJOR OR MINOR COLLECTORS. I-26 IS THE ONLY INTERSTATE IN HENDERSON COUNTY. THE ONLY PRINCIPAL ARTERIAL IN THE COUNTY IS U.S. 25. LESSER ARTERIALS INCLUDE U.S. 64, U.S. 74 AND N.C. 280. MAJOR COLLECTORS INCLUDE U.S. 176, N.C. 9, N.C. 191, S.R. 1127 (KANUGA ROAD), S.R. 1106 (GREEN RIVER ROAD) AND S.R. 1565 (TERRY'S GAP ROAD). TABLE 26 SHOWS THE FUNCTIONALLY CLASSIFIED ROADS IN HENDERSON COUNTY BY CATEGORY.

#### COMMUTING PATTERNS IN HENDERSON COUNTY

ACCORDING TO THE EMPLOYMENT SECURITY COMMISSION OF NORTH



TABLE 26

## FUNCTIONALLY CLASSIFIED ROADS IN HENDERSON COUNTY BY CATEGORY

<u>Principal Arterials</u>	<u>Minor Arterials</u>	<u>Major Collectors</u>	<u>Minor Collectors</u>
I-26	U.S. 64	U.S. 25	Sugar Loaf Rd.
Tabor Rd. Extension	U.S. 74	U.S. 64 (a small section west of Hendersonville)	McNaughton Rd.
	U.S. 191-280		Stepp Mill/Sugar Loaf Rd.
	U.S. 280		Howard Gap Rd.
	Blue Ridge Parkway	U.S. 176	Mountain Page Rd.
		N.C. 9	Cabin Creek Rd.
		N.C. 191	Evans Rd.
		Green River Rd.	Finley Cove/Hebron/Cummings Rd.
		Kanuga/Crab Creek Rd.	Etowah School Rd.
		Upward/Ridge Rd.	Banner Farm Rd.
		Dana Rd.	Broyles/ S. Rugby Rd.
		Green Mtn./Fruitland	North Rugby Rd.
		Mills Gap East	North Mills River/Jeffries Rd.
		Terry's Gap Rd.	Fanning Bridge/ Westfelt Rd.
		Lindsay Loop Rd.	Fanning Bridge Rd.
		Hooper's Creek/ Mills Gap North	

CAROLINA, THE GREATEST INFLUENCES ON COMMUNITY PATTERNS IN NORTH CAROLINA ARE THE HIGHWAY SYSTEMS AND INDUSTRIAL DEVELOPMENT ALONG WITH THE INCREASED USE OF THE AUTOMOBILE. THE COMMISSION ALSO FEELS THAT THE MAJOR METROPOLITAN AREAS WILL CONTINUE TO DRAW WORKERS BY OFFERING HIGHER SALARIES AND CONTINUALLY IMPROVING HIGHWAYS, MAKING COMMUTING MORE FEASIBLE IN SPITE OF FUEL SHORTAGE. THE CONTINUING TRANSITION OF NORTH CAROLINA FROM AN AGRARIAN ECONOMY TO AN INDUSTRIAL ONE HAS FACILITATED THE TREND TOWARD COMMUTING. THE GRADUAL DISAPPEARANCE OF SMALL FARMS HAS INCREASED TRAVEL TO THE CITY FOR JOBS BY RURAL RESIDENTS. SUBURBAN SPRAWL HAS ALSO RESULTED IN LONGER-DISTANCE COMMUTING.

THERE ARE 2 CATEGORIES OF EMPLOYMENT TRIPS IN THE AREA. THE FIRST CATEGORY IS EMPLOYMENT HOME-TO-WORK TRIP ORIGINS (TABLE 27). THIS CATEGORY GIVES THE PLACE OF ORIGIN (HOME) FROM WHICH THE WORK FORCE COMMUTES. ABOUT 98% OF HENDERSON COUNTY'S WORK FORCE ORIGINATED WITHIN THE COUNTY. ONLY 3% OF THE TOTAL WORK FORCE CAME FROM THE OTHER 3 COUNTIES OF REGION B WITH 1.3% COMING INTO HENDERSON COUNTY TO WORK FROM COUNTIES OUTSIDE THE REGION B AREA.

THE SECOND CATEGORY OF COMMUTING TRIPS IS EMPLOYMENT HOME-TO-WORK TRIP DESTINATION, WHICH DESCRIBES THE DESTINATION OF EMPLOYED PERSONS RESIDING WITHIN EACH COUNTY IN REGION B WHO WORK WITHIN OR OUTSIDE THE REGION B AREA. (SEE TABLE 28).

IN HENDERSON COUNTY, 83% OF THE WORK FORCE COMMUTED WITHIN THE COUNTY TO WORK, 13% WENT TO ONE OF THE OTHER

TABLE 27  
EMPLOYMENT HOME-TO-WORK TRIP ORIGINS

TOTAL DESTI- NATIONS	REMAIN IN COUNTY (INTRA)	OTHER REGION B COUNTIES	TOTAL PLANNING AREA	THIRTEEN N. C. COUNTIES	FIVE S. C. COUNTIES	OTHER COUN- TIES
16,701	15,617	665	16,282	274	42	130
100.0%	93.51%	3.98%	97.49%	1.48%	.25%	.78%

SOURCE: NORTH CAROLINA EMPLOYMENT SECURING COMMISSION, NORTH CAROLINA COMMUTING PATTERNS, MARCH 1974

TABLE 28  
EMPLOYMENT HOME-TO-WORK TRIP DESTINATIONS

TOTAL ORIGINS	REMAIN IN COUNTY (INTRA)	OTHER REGION B COUNTIES	TOTAL PLANNING AREA	THIRTEEN N. C. COUNTIES	FIVE S. C. COUNTIES	OTHER COUN- TIES
18,619	15,617	2,540	23,157	97	150	215
100.00%	83.88%	13.64%	97.52%	1.52%	.81%	1.15%

SOURCE: NORTH CAROLINA EMPLOYMENT SECURITY COMMISSION, NORTH CAROLINA COMMUTING PATTERNS, MARCH 1974

3 COUNTIES IN REGION B, AND ABOUT 2.5% COMMUTED OUT OF THE REGION. THE MOST SIGNIFICANT INTRA-REGIONAL COMMUTING PATTERNS ARE FROM HENDERSON COUNTY TO BUNCOMBE COUNTY AND HENDERSON COUNTY TO TRANSYLVANIA COUNTY. IN-COMMUTING OCCURS FROM POLK COUNTY TO HENDERSON COUNTY. OUT-COMMUTING ALSO OCCURRED FROM HENDERSON TO GREENVILLE COUNTY, SOUTH CAROLINA.

MAJOR INFLUENCES OF EMPLOYEE COMMUTING PATTERNS ARE INDUSTRIES WITHIN THE AREA. OTHER INFLUENCES OF COMMUTING PATTERNS ARE LARGE COMMERCIAL AND ADMINISTRATION CENTERS SUCH AS ASHEVILLE AND GREENVILLE, SOUTH CAROLINA.

HENDERSON COUNTY HAS SEVERAL INDUSTRIES THAT ATTRACT EMPLOYEES FROM OTHER AREAS, GENERAL ELECTRIC BEING THE MAJOR ONE. HOWEVER, INDUSTRIES IN HENDERSON COUNTY DID NOT SUPPLY ENOUGH EMPLOYMENT FOR THE COUNTY'S WORK FORCE BECAUSE THE COUNTY LOST 3,002 WORKERS WHO COMMUTED OUT OF THE COUNTY TO WORK IN 1970 AS COMPARED TO 2,084 WHO COMMUTED INTO THE COUNTY. (SEE TABLE 29)

#### TRAFFIC GENERATORS WITHIN HENDERSON COUNTY

MAJOR TRAFFIC GENERATORS IN HENDERSON COUNTY ARE THE CENTRAL BUSINESS DISTRICT OF HENDERSONVILLE; COMMERCIAL BUSINESS ALONG U.S. 64 EAST OF HENDERSONVILLE; MARGARET R. PARDEE MEMORIAL HOSPITAL, MOUNTAIN SANITARIUM AND HOSPITAL, VALLEY CLINIC AND HOSPITAL IN BAT CAVE; BLUE RIDGE TECHNICAL INSTITUTE; CITY AND COUNTY GOVERNMENTAL FACILITIES; HENDERSONVILLE AND HENDERSON COUNTY SCHOOL SYSTEM; INDUSTRIES; AND

TABLE 29

## COMMUTING PATTERNS IN REGION B: 1960-1970

COUNTY	1960			1970		
	OUT- COMMUTING	IN- COMMUTING	NET GAIN OR LOSS	OUT- COMMUTING	IN- COMMUTING	NET GAIN OR LOSS
BUNCOMBE	2,053	3,815	+1,762	2,557	6,914	+4,357
HENDERSON	1,646	922	- 724	3,002	1,084	-1,918
MADISON	853	222	- 631	1,979	220	-1,759
TRANSYLVANIA	406	996	+ 596	583	1,665	+1,082
REGION B						
TOTAL	4,958	5,955	+ 997	8,121	9,883	+1,762

SOURCE: NORTH CAROLINA EMPLOYMENT SECURITY COMMISSION, NORTH CAROLINA COMMUTING PATTERNS, MARCH, 1974



RECREATIONAL SITES SUCH AS LAKE SUMMIT NEAR TUXEDO.

### ACCIDENT CHARACTERISTICS

ACCIDENTS NUMBERING 3 OR MORE NEAR INTERSECTIONS IN HENDERSON COUNTY WERE CONCENTRATED ALONG U.S. 176 APPROACHING HENDERSONVILLE. ALSO MAJOR ROUTES EXPERIENCING 3 OR MORE ACCIDENTS AT INTERSECTIONS IN 1973 WERE ALONG U.S. 25 AND U.S. 64.

### AIRPORTS

HENDERSON COUNTY IS SERVED BY THE ONLY MAJOR AIRPORT IN WESTERN NORTH CAROLINA, THE ASHEVILLE MUNICIPAL AIRPORT. THE ASHEVILLE AIRPORT WAS USED BY NEARLY 150,000 PASSENGERS WHO BOARDED ALMOST 700 FLIGHTS IN 1973. THE AIRPORT SAW NEARLY A 50% GROWTH RATE IN PASSENGERS OVER THE 6 YEAR PERIOD OF 1967-1973. THE AIRPORT IS CURRENTLY SERVED BY DELTA, PIEDMONT AND UNITED AIRLINES. HENDERSONVILLE-WINKLER AIRPORT IS ONE OF THE MORE ACTIVE GENERAL AVIATION AIRPORTS IN NORTH CAROLINA. IN 1973 IT HAD A TOTAL OF 34 BASED AIRCRAFT AND DURING THAT SAME TIME PERIOD IT HAD A TOTAL OF 22,000 LOCAL OPERATIONS. A SMALL, PRIVATELY-OWNED AIRPORT ALSO OPERATES NEAR THE INTERSECTION OF 280 AND 191 IN MILLS RIVER.

### RAILROADS

HENDERSON COUNTY IS SERVED BY ONLY ONE RAILROAD, SOUTHERN RAILWAY COMPANY, WHICH CONNECTS THE COUNTY WITH ALL OF NORTH

CAROLINA AND SURROUNDING STATES. SOUTHERN RAILWAY OFFERS LIMITED FREIGHT AND PASSENGER SERVICE TO THE HENDERSON COUNTY AREA. PASSENGER TRAINS LEAVE ASHEVILLE GOING TO SALISBURY 3 TIMES A WEEK AND CONNECT WITH AMTRACK AT SALISBURY.

IN HENDERSON COUNTY THE SOUTHERN RAILWAY LINES RUN EAST-WEST, PARALLELING U.S. 74 TO THE TRANSYLVANIA COUNTY LINE, AND NORTH-SOUTH THROUGH HENDERSONVILLE, PARALLELING U.S. 25 NORTH TO BUNCOMBE COUNTY AND 176 SOUTH TO TRYON, NORTH CAROLINA, IN POLK COUNTY.

#### BUS SERVICE

HENDERSON COUNTY IS SERVED BY 2 MAJOR BUS LINES, GREYHOUND AND CONTINENTAL TRAILWAYS. GREYHOUND HAS SCHEDULED STOPS IN HENDERSONVILLE AND FLETCHER, WITH TRAILWAYS HAVING SCHEDULED STOPS ONLY AT THE HENDERSONVILLE STATION.

#### MOTOR TRUCKING LINES

HENDERSON COUNTY IS SERVED BY SEVERAL MOTOR TRUCKING LINES. THEY ARE C.T. & W.N.C., MCLEAN, RYDER TRUCK LINES (GREAT SOUTHERN DIVISION), OVERNITE, CENTRAL MOTOR LINES, BLUE RIDGE, PILOT, MASON & DIXON, ASSOCIATED TRANSPORT, JOHN-SON MOTOR LINES, SILVER FLEET, FREDRICKSON, AKERS MOTORS, CAROLINA FREIGHT LINES, YOUNGBLOOD TRUCKING LINES, HENNIS FREIGHT LINES, INC., THURSTON MOTOR LINES AND WHITE.

#### EXISTING AND ANTICIPATED TRANSPORTATION DEFICIENCIES

AVERAGE DAILY TRAFFIC FLOW IS AN IMPORTANT CRITERIA IN

JUDGING WHETHER A HIGHWAY IS MEETING DAILY DEMANDS. IT IS RECOMMENDED THAT 2 LANE HIGHWAYS WHICH CARRY A TRAFFIC VOLUME OF 5,000 VEHICLES PER DAY OR MORE BE CONSIDERED FOR 3 OR 4 LANE STATUS; AND ON HIGHWAYS WITH VOLUMES OF 8,000 OR MORE VEHICLES PER DAY, A 4 LANE FACILITY SHOULD BE REQUIRED.

FOUR-LANE FACILITIES THAT ARE NON-EXPRESSWAY TYPE FACILITIES BEGIN TO BE JUSTIFIED FOR UPGRADING TO AN EXPRESSWAY STATUS (A DIVIDED ARTERIAL HIGHWAY WITH FULL OR PARTIAL CONTROL OF ACCESS) WHEN TRAFFIC VOLUMES EXCEED 18,000 AND ARE DEEMED NECESSARY WHEN VOLUMES EXCEED 28,000.

#### PAVEMENT WIDTHS

ANOTHER MAJOR TYPE OF DEFICIENCY IS 12 FEET PER LANE OR 24 FEET FOR TWO LANE ROADS. MANY ROADS IN HENDERSON COUNTY HAVE PAVEMENT WIDTHS OF LESS THAN 24 FEET.

AVERAGE DAILY TRAFFIC FLOW AND PAVEMENT WIDTH DEFICIENCIES FOR HENDERSON COUNTY ARE SHOWN IN TABLES 30 AND 31.

#### RECOMMENDED HIGHWAY IMPROVEMENTS

THE FOLLOWING TEXT GIVES A DESCRIPTION OF RECOMMENDED HIGHWAY IMPROVEMENTS FOR HENDERSON COUNTY AS OUTLINED BY THE MAJOR THOROUGHFARE PLAN, LAND-OF-SKY REGIONAL COUNCIL.

##### PRIORITY I

U.S. 25: WIDENING TO A 4 LANE FACILITY FROM THE NORTHERN CITY LIMITS OF HENDERSONVILLE IN HENDERSON COUNTY TO THE BUNCOMBE COUNTY LINE.

U.S. 64: WIDENING OF THE ROAD TO A 24 FOOT FACILITY

TABLE 30

## PAVEMENT WIDTH DEFICIENCIES

HIGHWAYS	BELOW 20 FEET	20-24 FEET
MINOR ARTERIAL		
	U.S. 64 - 22' MAJORITY OF HIGHWAY IN HENDERSON COUNTY	
	U.S. 74 - 20' WHOLE LENGTH IN HENDERSON COUNTY	
	N.C. 280 - 20' IN HENDERSON COUNTY	
COLLECTORS		
	N.C. 9 - 20', WHOLE LENGTH IN HENDERSON COUNTY	
	N.C. 191 - 22', WHOLE LENGTH IN HENDERSON COUNTY	
	U.S. 25 - 22', WHOLE LENGTH OF HIGH- WAY SOUTH OF HENDERSONVILLE IN HENDERSON COUNTY	
	U.S. 176 - 20' AND 22' FOR THE WHOLE LENGTH IN HENDERSON COUNTY	

SOURCE: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION, 1973

TABLE 31

## PRESENT AND PROJECTED ADT DEFICIENCIES

5,000 - 8,000 ADT AND NOT 4 LANE	1974-1980	1980-1985	1985-1990	1990-1995
MINOR ARTERIALS		U.S. 64 - FROM PENROSE IN IRAN- SYLVANIA COUNTY TO THE COMMUNITY OF HORSE SHOE IN HENDERSON COUNTY		N.C. 280 - FROM THE JUNCTION OF U.S. 64-276 IN TRANSPORTATION COUNTY TO THE JUNCTION OF N.C. 191 IN HENDERSON COUNTY
COLLECTORS	U.S. 25 FROM THE S.C. LINE TO ZIRCONIA IN HEN- DERSON COUNTY	U.S. 64 - FROM DOWNTOWN HENDER- SONVILLE TO THE JUNCTION OF I-26	U.S. 25 - FROM ZIRCONIA TO THE SOUTHERN CITY LIMITS OF HEN- DERSONVILLE (HENDERSON COUNTY)	N.C. 191 - FROM THE NORTHERN CITY LIMITS OF HENDER- SONVILLE TO THE JUNCTION OF N.C. 280 (HENDERSON COUNTY)
	U.S. 25 FROM FLAT ROCK TO SOUTHERN CITY LIMITS OF HENDERSONVILLE (HENDERSON COUNTY)			
	U.S. 64 - FROM WESTERN CITY LIMITS OF HENDER- SONVILLE TO HORSE SHOE (HEN- DERSON COUNTY)			
	U.S. 176 - FROM SOUTHERN CITY LIMITS OF HENDER- SONVILLE TO POLK COUNTY LINE (HEN- DERSON COUNTY)			
	N.C. 191-280 FROM BUNCOMBE COUNTY LINE TO JUNCTION OF N.C. 191-230 IN HENDERSON COUNTY			



FROM THE WESTERN SECTION OF HENDERSONVILLE  
TO THE COMMUNITY OF HORSE SHOE.

N.C. 191: UPGRADE TO A 24 FOOT FACILITY FROM HENDERSONVILLE TO THE JUNCTION OF N.C. 280.

I-26 - U.S. 25 CONNECTOR: UPGRADE TO A 4 LANE FACILITY.

## PRIORITY II

S.R. 1127 (KANUGA - CRAB CREEK RD.): UPGRADE ROAD IN HENDERSON COUNTY TO A 22 OR 24 FOOT WIDTH FROM WESTERN CITY LIMITS OF HENDERSONVILLE TO THE TRANSYLVANIA COUNTY LINE.

N.C. 191-280: WIDEN HIGHWAY TO A 24 FOOT FACILITY IN HENDERSON COUNTY FROM THE JUNCTION OF N.C. 191-280 TO THE HENDERSON COUNTY LINE.

U.S. 64: WIDEN HIGHWAY TO A 24 FOOT FACILITY IN HENDERSON COUNTY FROM THE JUNCTION OF U.S. 74 AND N.C. 9 TO THE COMMUNITY OF EDNEYVILLE.

A COMPLETE PRIORITY LISTING CAN BE FOUND IN THE MAJOR THOROUGHFARE PLAN, LAND-OF-SKY REGIONAL COUNCIL.

## SCHEDULED HIGHWAY PROJECTS

THE FOLLOWING ARE HIGHWAY PROJECTS THAT ARE IN THE STATE'S PRESENT HIGHWAY IMPROVEMENT PROGRAM FOR HENDERSON COUNTY FOR THE PERIOD 1974-1981.

U.S. 25: UPGRADING OF 4.5 MILES BETWEEN SECONDARY ROAD 1101 AND ZIRCONIA. THIS WILL CONSIST OF A 4 LANE FREEWAY ON NEW LOCATION.

U.S. 176: UPGRADING OF 4.6 MILES BETWEEN HENDERSONVILLE AND U.S. 25 - I-26 CONNECTOR. IT IS PROPOSED TO WIDEN U.S. 176 TO A MULTI-LANE SECTION (5 LANE CURB AND GUTTER ROADWAY).

N.C. 280 - I-26: CONSTRUCTION OF NEW 4 LANE FACILITY FROM 191-280 INTERSECTION TO INTERCHANGE ON I-26 NEAR ASHEVILLE AIRPORT.

## MASS TRANSIT

THE ESTABLISHMENT OF SOME FORM OF MASS TRANSIT (BUS SERVICE) SHOULD BE ESTABLISHED TO SERVE THE CITIZENS, ESPECIALLY THE LOW-INCOME RURAL FAMILIES OF HENDERSON COUNTY. TO SERVE THE CITIZENS THROUGH SOME FORM OF MASS TRANSIT WOULD HELP ALLEVIATE THE TRAFFIC CONGESTION IN AREAS IN AND AROUND THE CITY OF HENDERSONVILLE.

THE COST TO THE USER SHOULD BE KEPT TO A MINIMUM IN ORDER TO ATTRACT NEEDED USERS. THIS WOULD REQUIRE LARGE SUBSIDIES FROM LOCAL GOVERNMENTS AND STATE AND FEDERAL AGENCIES INVOLVED IN MASS TRANSIT.

### SOURCE:

LAND-OF-SKY REGIONAL COUNCIL, MAJOR THOROUGHFARE PLAN,  
JUNE, 1975.

NORTH CAROLINA HIGHWAY IMPROVEMENT PROGRAM 1976-1983, NORTH  
CAROLINA DEPARTMENT OF TRANSPORTATION, DIVISION OF  
HIGHWAYS, OCTOBER, 1976.

## CHAPTER 6

### WATER AND WASTEWATER

#### GENERAL

ACCORDING TO THE NATIONAL ASSOCIATION OF COUNTIES RESEARCH FOUNDATION IN WASHINGTON D. C., WITHIN THE NEXT TWENTY YEARS THE UNITED STATES' WATER USE WILL BE DOUBLED, BUT THE AMOUNT OF WATER AVAILABLE FOR OUR USE WILL INCREASE ONLY SLIGHTLY. ACCORDING TO THEIR RESEARCH, WATER IS FAST BECOMING A VANISHING RESOURCE. ONE CONCLUSION DRAWN FROM THIS RESEARCH IS THAT BY THE YEAR 2000 SOME PARTS OF THE UNITED STATES WILL HAVE TO REUSE WATER. THIS MEANS THAT EACH UNIT OF LOCAL GOVERNMENT AND INDUSTRY WILL HAVE TO TREAT ITS WASTEWATER SO IT CAN BE REUSED. IT IS BECOMING CLEAR IN SOME SECTIONS OF THE UNITED STATES THAT WE CAN NO LONGER AFFORD TO USE WATER UNWISELY AND WASTEFULLY, PARTICULARLY FOR THE INDISCRIMINATE AND THOUGHTLESS DISPOSAL OF WASTES. WE CAN NO LONGER AFFORD THE LUXURY OF HAVING OUR VALUABLE WATER SUPPLY MADE USELESS BY POLLUTION. THE PUBLIC HEALTH SERVICE STATES THAT "POLLUTED WATER IS NEARLY AS BAD AS NO WATER AT ALL, AND IN SOME CASES IT IS WORSE."

WHETHER WE CAN BELIEVE THE CURRENT RESEARCH AND DATA COMING FROM VARIOUS ORGANIZATIONS IS A MATTER OF PERSONAL OPINION. HENDERSON COUNTY COMPARED TO OTHER COUNTIES IN THE UNITED STATES AND EVEN IN NORTH CAROLINA, APPEARS TO BE IN A VERY GOOD POSITION AS FAR AS WATER SUPPLY AND QUALITY ARE CONCERNED. WHEN WE CONSIDER THE CURRENT WATER SUPPLY AVAILABLE TO US AND THE QUALITY OF THAT WATER, HENDERSON

COUNTY IS INDEED FORTUNATE. THIS CHAPTER WILL DISCUSS PRESENT WATER SUPPLY FACILITIES AND FUTURE PROJECTS FOR WATER DISTRIBUTION IN HENDERSON COUNTY.

THE MAJOR WATER SYSTEM IN HENDERSON COUNTY IS OWNED AND OPERATED BY THE CITY OF HENDERSONVILLE. THE HENDERSONVILLE WATER DEPARTMENT SUPPLIES WATER TO THE TOWN OF LAUREL PARK, AND TO THE COMMUNITIES OF MOUNTAIN HOME, FLAT ROCK, EAST FLAT ROCK AND THE TOWN OF SALUDA IN POLK COUNTY. THE COMMUNITIES OF ETOWAH AND TUXEDO HAVE THEIR OWN SMALL PUBLIC WATER SUPPLY SYSTEMS. THE CITY OF ASHEVILLE HAS SUPPLIED WATER TO THE COMMUNITY OF FLETCHER SINCE 1964 IN THE NORTHERN SECTION OF THE COUNTY. THEY ARE NOW MAKING PLANS TO TURN OVER THEIR DISTRIBUTION SYSTEM TO THE HENDERSONVILLE WATER DEPARTMENT UPON COMPLETION OF THE NEW WATER MAIN ALONG U. S. 25. IN ADDITION TO THESE SYSTEMS, THE COUNTY HEALTH DEPARTMENT REPORTS THAT THERE ARE ADDITIONAL PRIVATELY OWNED WATER SYSTEMS SERVING NUMEROUS SUBDIVISIONS AND MOBILE HOME PARKS IN THE COUNTY.

### WATER SOURCES

THE CITY OF HENDERSONVILLE OBTAINS WATER FROM (1) BRADLEY CREEK AND THE HEADWATERS OF NORTH MILLS RIVER LOCATED IN PISGAH NATIONAL FOREST AND (2) FROM THE MILLS RIVER BY MEANS OF A RAW WATER INTAKE LOCATED DOWNSTREAM FROM THE MILLS RIVER BRIDGE ON N. C. ROUTE 191. WATER FROM THE PISGAH NATIONAL FOREST WATERSHED UNDERGOES SEDIMENTATION AND CHLORINATION, WHILE WATER OBTAINED FROM THE MILLS RIVER IS FILTERED IN THE CONVENTIONAL MANNER. WATER FROM THE PISGAH FOREST WATERSHED



IS TRANSMITTED APPROXIMATELY 17 MILES TO 2 DISTRIBUTION RESERVOIRS ON EWART HILL. FROM THE INTAKE ON BRADLEY CREEK, THE WATER IS TRANSMITTED THROUGH A 20-INCH CAST IRON PIPE TO A POINT ABOUT 9 MILES FROM HENDERSONVILLE WHERE IT JOINS WATER COMING THROUGH A 16-INCH CAST IRON PIPE FROM THE NORTH MILLS RIVER INTAKE. WATER FLOWS BY GRAVITY TO A BOOSTER PUMP STATION ON CAMPGROUND ROAD WHERE IT IS THEN PUMPED TO THE RESERVOIRS FOR STORAGE. MAXIMUM DELIVERY TO THE DISTRIBUTION SYSTEM IS 6.9 MILLION GALLONS PER DAY (MGD).

#### HENDERSONVILLE

THE HENDERSONVILLE WATER SYSTEM SERVES APPROXIMATELY 28,000 RESIDENTS THROUGH SOME 7,500 SERVICE CONNECTIONS. THE AVERAGE DAILY AMOUNT OF WATER SUPPLIED TO THE DISTRIBUTION SYSTEM IS 4.9 MILLION GALLONS PER DAY. THE GENERAL ELECTRIC PLANT LOCATED IN EAST FLAT ROCK AND THE BERKELY MILLS PLANT IN BALFOUR TOGETHER USE APPROXIMATELY 30% OF THE SYSTEM'S OUTPUT.

THE HENDERSONVILLE WATER SYSTEM, ACCORDING TO CURRENT ENGINEERING REPORTS IS ADEQUATE FOR ITS PRESENT NEEDS AND HAS PLANS UNDERWAY TO PROVIDE FOR EXPECTED FUTURE GROWTH. PLANS INCLUDE EXPANDING THE PRESENT FILTRATION PLANT TO A 12 MGD CAPACITY BY 1979, AT WHICH TIME ALL WATER DELIVERED TO THE SYSTEM WILL HAVE RECEIVED COMPLETE FILTRATION.

#### ETOWAH

THE COMMUNITY OF ETOWAH LOCATED 9 MILES WEST OF



HENDERSONVILLE ON U.S. 64, IS SERVED BY A WATER SYSTEM OWNED AND OPERATED BY THE ETOWAH WATER ASSOCIATION. THE SOURCE OF THE ETOWAH WATER SYSTEM IS 3 WELLS, EACH WITH A PUMPING CAPACITY OF 45 THOUSAND GALLONS PER DAY. WATER FROM THE WELLS IS CHLORINATED AND STORED IN A 100,000 GALLON ELEVATED TANK. DISTRIBUTION LINES ARE 8-INCH AND 6-INCH PIPE.

THE ETOWAH SYSTEM PRESENTLY SERVES A POPULATION OF ABOUT 600 THROUGH SOME 215 SERVICE CONNECTIONS. THE AVERAGE DAILY OUTPUT OF THE SYSTEM IS 38,000 GALLONS.

TABLE 32  
PROJECTED WATER USE - HENDERSONVILLE  
(MILLION GALLONS PER DAY)

<u>CONSUMPTION</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>
DOMESTIC	3,738	4,356	5,060	5,809	6,563
INDUSTRIAL	<u>2,356</u>	<u>2,704</u>	<u>3,196</u>	<u>3,683</u>	<u>4,256</u>
TOTAL	6,094	4,060	8,256	9,492	10,819

TABLE 33  
PROJECTED WATER USE - ETOWAH  
(MILLION GALLONS PER DAY)

<u>CONSUMPTION</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>
TOTAL	0.074	0.090	0.109	0.125	0.141

CURRENT ENGINEERING ESTIMATES INDICATE THE ETOWAH WATER SYSTEM IS ADEQUATE FOR ITS PRESENT USE. THE SYSTEM WILL NEED

ADDITIONAL SUPPLY AND STORAGE FACILITIES TO MEET FUTURE NEEDS. THE ETOWAH WATER ASSOCIATION RECENTLY APPLIED FOR FEDERAL FUNDING TO EXPAND THE PRESENT WATER DISTRIBUTION SYSTEM WITH THE ANTICIPATION OF SERVING A LARGER POPULATION BASE.

#### TUXEDO - LAKE SUMMIT AREA

THE TUXEDO-LAKE SUMMIT AREA RECEIVES WATER FROM 3 SEPARATE SYSTEMS, THE TUXEDO, THE LAKE SUMMIT AND THE BELL WATER SUPPLY SYSTEMS, AND BY INDIVIDUAL SPRINGS AND WELLS.

THE J. P. STEVENS COMPANY OWNS AND OPERATES THE TUXEDO WATER SUPPLY SYSTEM. WATER IS OBTAINED FROM A 187 ACRE WATERSHED LOCATED NORTH OF TUXEDO. RAW WATER STORAGE CONSISTS OF A 750,000 GALLON IMPOUNDMENT. THE ONLY TREATMENT GIVEN THE WATER IS CHLORINATION AS IT LEAVES THE IMPOUNDMENT AREA FOR DISTRIBUTION. NO INFORMATION IS AVAILABLE ON THE SIZE OR EXACT LOCATION OF THE DISTRIBUTION FACILITIES. THE DISTRIBUTION SYSTEM IS REPORTED TO BE IN POOR CONDITION DUE TO AGE.

THE TUXEDO SYSTEM SERVES THE J. P. STEVENS COMPANY PLANT AND APPROXIMATELY 90 RESIDENTS IN THE AREA. AVERAGE DAILY CONSUMPTION IS ABOUT 200,000 GALLONS, INCLUDING BOTH PLANT AND RESIDENCES.

THE BELL WATER SYSTEM SERVES CAMP MONDAMIN AND ABOUT 40 RESIDENTS IN TUXEDO. IT OBTAINS ITS WATER FROM A TRIBUTARY OF THE GREEN RIVER AND FROM LOCAL WELLS. TREATMENT PROVIDED IS CHLORINATION ONLY. THE SYSTEM HAS A 100,000 GALLON

STORAGE TANK. NO INFORMATION IS AVAILABLE ON THE SIZE AND LOCATION OF THE DISTRIBUTION SYSTEM. IT IS REPORTED TO BE LESS THAN 2 INCHES IN DIAMETER AND IN POOR OVERALL CONDITION.

THE LAKE SUMMIT WATER SUPPLY SYSTEM ALSO SERVES 108 RESIDENTS IN THE AREA AROUND THE LAKE. ITS SOURCE OF WATER IS FROM SPRINGS. IT HAS 5,000 GALLONS OF STORAGE CAPACITY.

TABLE 34  
PROJECTED WATER USE - TUXEDO AND LAKE SUMMIT AREA  
(MILLION GALLONS PER DAY)

<u>CONSUMPTION</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>
DOMESTIC	0.147	0.168	0.191	0.229	0.273
INDUSTRIAL	<u>0.172</u>	<u>0.180</u>	<u>0.190</u>	<u>0.200</u>	<u>0.210</u>
TOTAL	0.319	0.348	0.381	0.429	0.483

THE PRESENT WATER SYSTEMS IN THE LAKE SUMMIT-TUXEDO AREA ARE INADEQUATE AND ARE NOT CAPABLE OF SERVING THE POPULATION IN THE AREA AND ARE NOT CAPABLE OF BEING EXPANDED.

THE AREA HAS POTENTIAL FOR FURTHER GROWTH AND THERE IS A NEED FOR MAJOR UPGRADING OF THE WATER DISTRIBUTION SYSTEM.

#### FUTURE EXPANSION AND NEEDS

THE HENDERSONVILLE WATER SYSTEM IS ADEQUATE FOR PRESENT NEEDS ACCORDING TO MOST RECENT REPORTS. THE OFFICIALS OF THE CITY WATER DEPARTMENT, THROUGH EXPERIENCE AND SOUND PLANNING, ALREADY HAVE PLANS UNDER WAY TO PROVIDE FOR THE FUTURE GROWTH

EXPECTED TO TAKE PLACE IN AND AROUND HENDERSONVILLE. THE PLANS INCLUDE EXPANDING THE PRESENT WATER PURIFICATION PLANT TO A 12 MGD CAPACITY BY 1979. THE CITY OF HENDERSONVILLE WATER DEPARTMENT ALSO HAS UNDER CONSTRUCTION THE EXTENSION OF A 16-INCH TRANSMISSION LINE FROM MOUNTAIN HOME TO FLETCHER. WHEN COMPLETED THIS LINE WILL SERVE THE MAJOR URBAN GROWTH AREAS IN THAT SECTION OF THE COUNTY. UPON COMPLETION OF THE PROJECT IT IS ANTICIPATED THAT THE FLETCHER COMMUNITY WILL BE TRANSFERRED FROM THE ASHEVILLE WATER SYSTEM TO THE HENDERSONVILLE WATER SYSTEM.

A FUTURE PROJECT SHOULD INCLUDE THE SUPPLYING OF WATER TO TUXEDO-LAKE SUMMIT FROM THE HENDERSONVILLE SYSTEM. THIS PROJECT, AS DESCRIBED IN THE LAND-OF-SKY REGIONAL COUNCIL REPORT, WATER AND WASTEWATER PLAN, PART II, WOULD CALL FOR THE CONSTRUCTION OF A 10-INCH TRANSMISSION LINE FROM HENDERSONVILLE'S EXISTING 12-INCH LINE ON U.S. 176 INTO TUXEDO AND THE CONSTRUCTION OF A 500,000 GALLON RESERVOIR TO SERVE THE TUXEDO-LAKE SUMMIT AREA.

THE SECOND PRIORITY PROJECT ACCORDING TO THE STUDY, SHOULD BE THE COMPLETION OF HENDERSONVILLE'S PLANNED EXPANSION OF ITS WATER PURIFICATION PLANT TO 12 MGD CAPACITY. A MAJOR EXPANSION OF THE SYSTEMS SERVICE AREA IS ANTICIPATED TO FOLLOW PLANT EXPANSION WITH THE EXTENSION OF SERVICE INTO THE MILLS RIVER COMMUNITY AND ALONG U.S. 64 EAST OF HENDERSONVILLE TO EDNEYVILLE. THIS EXPANSION WOULD INVOLVE 2 PROJECTS. ONE, THE CONSTRUCTION OF A 1 MILLION GALLON RESERVOIR IN EDNEYVILLE FED BY A 10-INCH TRANSMISSION LINE ALONG U.S. 64 FROM



HENDERSONVILLE. THE SECOND PROJECT CALLS FOR THE CONSTRUCTION OF A 2 MILLION GALLON RESERVOIR IN THE VICINITY OF NAPLES, FED BY A 12-INCH TRANSMISSION LINE FROM THE HENDERSONVILLE WATER PURIFICATION PLANT. THE PROPOSED RESERVOIR AT NAPLES WOULD PROVIDE DISTRIBUTION SYSTEM STORAGE FOR THE FLETCHER, MILLS RIVER AND MOUNTAIN HOME AREAS.

ETOWAH CAN MEET ITS IMMEDIATE GROWTH NEEDS BY PLACING ITS THIRD WELL INTO SERVICE. THE PRESENT PLAN WOULD PROVIDE A WATER TRANSMISSION LINE FROM HENDERSONVILLE TO ETOWAH TO SERVE THAT AREA SOMETIME AROUND 1980.

ADDITIONAL PROPOSED PROJECTS INCLUDE THE EXTENSION OF AN 8-INCH TRANSMISSION LINE TO FRUITLAND AND A 10-INCH TRANSMISSION LINE OUT SECONDARY ROADS 1804 (CREST ROAD) AND 1722 (UPWARD ROAD) TO BLUE RIDGE TOWNSHIP. IN ADDITION, THE EXPANSION OF A 10-INCH LINE OUT KANUGA ROAD IS PROPOSED TO SERVE THE RESIDENTIAL DEVELOPMENT EXPECTED TO OCCUR IN THAT AREA.

THESE STAGED WATER DISTRIBUTION IMPROVEMENTS WILL PROVIDE A SOUND FOUNDATION FOR A COUNTY WATER SUPPLY SYSTEM. APPROXIMATELY 65% OF ALL SERVICE CONNECTIONS ARE NOW OUTSIDE THE CITY LIMITS OF HENDERSONVILLE.

#### WASTEWATER COLLECTION AND TREATMENT

HENDERSON COUNTY WASTEWATER TREATMENT FACILITIES INCLUDE 1 MUNICIPAL SYSTEM, THE CITY OF HENDERSONVILLE; 7 INDUSTRIAL WASTEWATER TREATMENT PLANTS; 4 PRIVATELY OWNED PLANTS SERVING COMMERCIAL FACILITIES AND APARTMENT COMPLEXES; AND A FEDERAL FACILITY SERVING THE NORTH MILLS RIVER RECREATION AREA.



EXCEPT FOR THE RESIDENTS OF HENDERSONVILLE AND A PORTION OF THE TOWN OF LAUREL PARK, WASTEWATER TREATMENT FACILITIES IN HENDERSON COUNTY, IN RESIDENTIAL AREAS, ARE LIMITED TO INDIVIDUAL SEPTIC TANKS AND NITRIFICATION FIELDS.

### HENDERSONVILLE

THE HENDERSONVILLE WASTEWATER SYSTEM SERVES APPROXIMATELY 8,000 PEOPLE AND 12 INDUSTRIES THROUGH ITS 2,750 CONNECTIONS. THE HENDERSONVILLE SYSTEM ALSO SERVES A PORTION OF THE TOWN OF LAUREL PARK. THE SEWER COLLECTION SYSTEM LIES ALMOST ENTIRELY WITHIN THE CITY LIMITS OF HENDERSONVILLE, WITH THE EXCEPTION OF A LINE ALONG U.S. 176 TO THE GENERAL ELECTRIC PLANT AT EAST FLAT ROCK.

THE HENDERSONVILLE WASTEWATER TREATMENT PLANT PROVIDES COMPLETE TREATMENT FOR THE CITY'S WASTEWATER. PROJECTED WASTEWATER FLOWS INDICATE THE HENDERSONVILLE WASTEWATER TREATMENT PLANT WILL NEED EXPANDING IN THE NEAR FUTURE.

### PRIVATE AND INDUSTRIAL SYSTEMS

THE MAJOR INDUSTRIAL WASTEWATER TREATMENT FACILITIES ARE THOSE FOR THE GENERAL ELECTRIC COMPANY AT EAST FLAT ROCK AND THE CRANSTON PRINT WORKS IN FLETCHER. THE G. E. PLANT DISCHARGES ALL ITS DOMESTIC WASTE AND A PORTION OF ITS INDUSTRIAL WASTEWATER TO THE HENDERSONVILLE SYSTEM FOR TREATMENT.

THE CRANSTON PRINT WORKS HAS RECENTLY PLACED A CONTACT STABILIZATION PLANT IN OPERATION WHICH DISCHARGES INTO THE FRENCH BROAD RIVER.

OTHER WASTEWATER TREATMENT FACILITIES IN HENDERSON COUNTY INCLUDE THE OLD VIRGINIA PLANT, BONCLARKEN ASSEMBLY, NORTH MILLS RIVER RECREATIONAL AREA, RUTH ORIGINALS, STEELCASE AND EATON CORPORATION IN THE CANE CREEK INDUSTRIAL PARK, CAROLINA VILLAGE AND KING'S SHOPPING CENTER. DELLWOOD APARTMENTS, FLETCHER SHOPPING CENTER, BLUE STAR CAMPS, KANUGA CONFERENCE GROUNDS, HOLIDAY INN, RAMADA INN, WEST AND EAST HENDERSON HIGH SCHOOL, RUGBY JUNIOR HIGH AND HUNTER CHEVROLET ALSO HAVE SMALL WASTEWATER TREATMENT PLANTS.

SOURCE:

CITY OF HENDERSONVILLE WATER DEPARTMENT.

CUMMINGS ENGINEERS, INC., LAND-OF-SKY WATER AND WASTEWATER PLAN, PART II, JULY 1975.

REGION B - NORTH CAROLINA  
HENDERSON CO.

EXISTING  
WATER & SEWER LINES

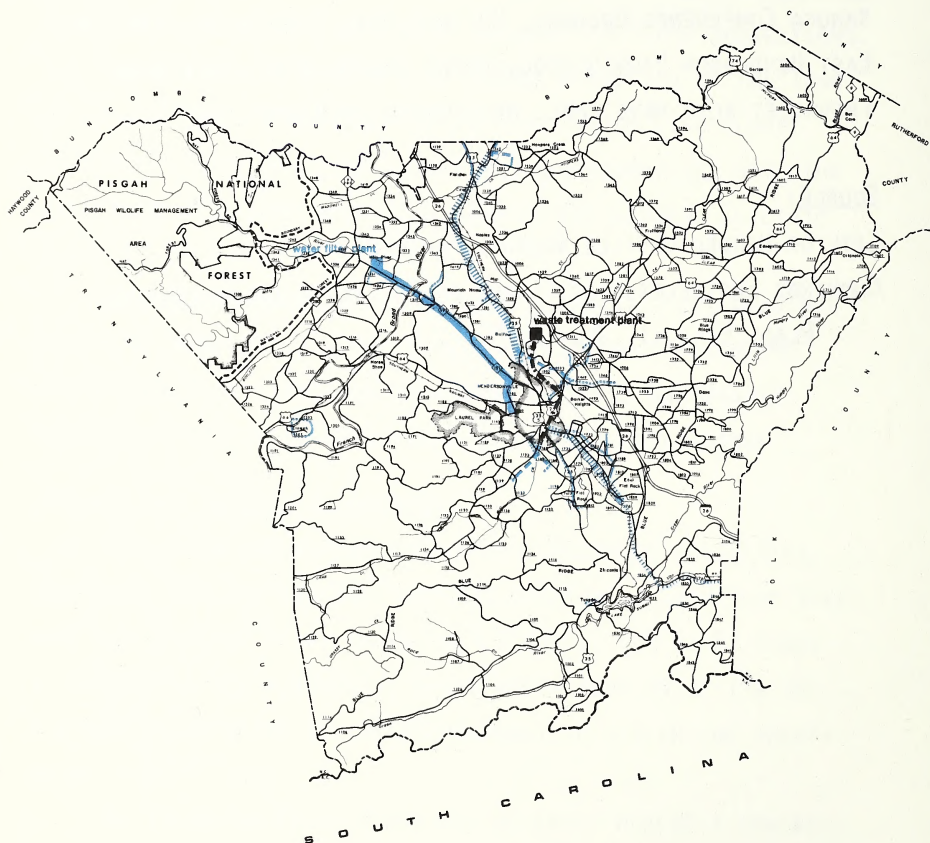


LAND OF SIX REGIONAL COUNCIL  
10° 10' 10" 10" 10" 10"

SEWER LINE



WATER LINES



THE INFORMATION ON THIS MAP WAS OBTAINED FROM THE HENDERSON COUNTY WATER & SEWER DEPARTMENT. THE HENDERSON COUNTY WATER & SEWER DEPARTMENT IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS. THE HENDERSON COUNTY WATER & SEWER DEPARTMENT IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS. THE HENDERSON COUNTY WATER & SEWER DEPARTMENT IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS.

## CHAPTER 7

### FLOOD CONTROL

#### GENERAL

IN VIEW OF THE MANY AREAS OF HENDERSON COUNTY WHICH ARE FLOOD-PRONE, THIS CHAPTER WILL DISCUSS SOME FLOODPLAIN DEVELOPMENT POLICIES WHICH WOULD MINIMIZE THE LOSS OF PROPERTY, CROPS AND POSSIBLE LIFE IN THE EVENT OF MAJOR FLOODS.

FLOODS ARE A NATURAL PHENOMENA WHICH OCCUR WHEN THE BANKS OF A STREAM OR BODY OF WATER ARE FILLED BEYOND THEIR CAPACITY, CAUSING WATER TO OVERFLOW ON BORDERING LANDS. EVERY STREAM SUBJECT TO FLOODING HAS AN AREA CALLED THE FLOODPLAIN. WHEN A STREAM IS FLOODING OR "OUT OF ITS BANKS" AS THEY SAY, THE LAND KNOWN AS THE FLOODPLAIN IS SUBJECT TO FLOODING. MOST FLOODPLAINS ARE ATTRACTIVE FOR SETTLEMENT. EXCEPT FOR BRIEF PERIODS OF FLOODING, THE FLAT, FERTILE LANDS WHICH BORDER STREAMS LEND THEMSELVES TO PROFITABLE CULTIVATION AND URBAN DEVELOPMENT. THE SETTLEMENT OF FLOODPLAINS IS EVIDENCE THAT DAMAGING FLOODS ARE FORGOTTEN TOO SOON AFTER THEY OCCUR. WHEN FLOOD WATERS INVADE THE FLOODPLAIN, DEVELOPMENTS ARE SUBJECT TO DAMAGE AND POSSIBLE DESTRUCTION. DEVELOPMENTS, UNLIKE LIVESTOCK, CANNOT BE MOVED TO HIGHER GROUND WHEN FLOODING IS IMMINENT.

THE FLOODPLAIN IS A VERY IMPORTANT PART OF THE STREAM ITSELF. IT IS FORMED BY PERIODIC OVERFLOWS WHICH MAY BE NEEDED TO CARRY THE WATER OVERFLOWING ITS NATURAL BANKS. THE FLOODPLAIN MUST BE MANAGED AS OTHER VALUABLE NATURAL RESOURCES. THE FLOODPLAIN MUST BE USED FOR THOSE PURPOSES



WHICH ARE COMPATIBLE. IF USED CORRECTLY, THE FLOODPLAIN CAN BECOME AN ASSET RATHER THAN A LIABILITY IN THE ECONOMIC DEVELOPMENT OF THE COUNTY.

IF A SOUND PUBLIC POLICY TOWARD FLOODPLAIN MANAGEMENT IS ADOPTED, PRESENT AND FUTURE GENERATIONS CAN BE ASSURED THAT THE GREAT NATURAL RESOURCES LIKE THE FRENCH BROAD RIVER ARE BEING USED FOR THE GREATEST BENEFIT OF THE POPULATION OF HENDERSON COUNTY.

### HISTORY

THE FRENCH BROAD RIVER FLOWS IN A SEMICIRCLE IN WESTERN NORTH CAROLINA AND EASTERN TENNESSEE. IT BEGINS AT ROSMAN, NORTH CAROLINA, AND FLOWS A DISTANCE OF 69 MILES TO ASHEVILLE, NORTH CAROLINA, WHERE IT CONTINUES TO FLOW THROUGH BUNCOMBE AND MADISON COUNTIES. THERE ARE APPROXIMATELY 22 MILES OF THE FRENCH BROAD RIVER IN HENDERSON COUNTY.

RECORDS OF RIVER STAGES ON THE FRENCH BROAD BEGAN IN SEPTEMBER OF 1895, WHEN THE U. S. GEOLOGICAL SURVEY ESTABLISHED GAUGING STATIONS ALONG THE RIVER. THE GAUGING STATION AT BENT CREEK WAS ESTABLISHED IN 1934, AND RECORDS ARE CURRENTLY MAINTAINED BY THE U. S. GEOLOGICAL SURVEY.

IN THE EXTREME HEADWATERS AND IN THE FLAT REACHES JUST DOWNSTREAM INTO HENDERSON COUNTY, THERE HAVE BEEN ABOUT 100 FLOODS SINCE 1895. THIS IS AN AVERAGE OF 6 FLOODS IN 5 YEARS; HOWEVER, MANY YEARS NO FLOODING OCCURS. FLOODS HAVE OCCURRED IN EVERY MONTH OF THE YEAR ALONG THE FRENCH BROAD RIVER.



AT ROSMAN AND AREAS DOWNSTREAM TO ASHEVILLE, LARGE FLOODS MAY RISE AT A RATE OF 4 TO 5 FEET PER HOUR, BUT IN THE FLAT REACH AT THE BLANTYRE GAUGING STATION NEAR THE TRANSYLVANIA-HENDERSON COUNTY LINE, THE MAXIMUM RISE SELDOM EXCEEDS ONE FOOT PER HOUR. IN OCTOBER, 1964, THE RIVER WAS ABOVE ITS BANK AT BLANTYRE FOR 5 DAYS WITH AN AVERAGE RISE OF ONE FOOT PER HOUR.

THE 100 YEAR FLOOD IS DEFINED BY THE TENNESSEE VALLEY AUTHORITY AS A FLOOD WHICH WOULD BE EQUALED OR EXCEEDED IN VOLUME AND HEIGHT ON AN AVERAGE ONCE IN 100 YEARS. IT WOULD HAVE A ONE PERCENT CHANCE OF OCCURRING IN ANY GIVEN YEAR. FLOODS OF THE 100 YEAR MAGNITUDE ARE OFTEN USED AS A GUIDE TO IDENTIFYING FLOOD PLAIN AREAS.

ALTHOUGH MANY PLANNING PROGRAMS USE THE 100 YEAR FLOOD AS A BASIS FOR ESTABLISHING THE FLOODPLAIN, IT SHOULD BE REMEMBERED THAT LARGER FLOODS THAN THE 100 YEAR FLOOD ARE POSSIBLE AND CAN OCCUR AT ANY TIME.

THE 1916 FLOOD ALONG THE FRENCH BROAD RIVER AND TRIBUTARIES EXCEEDED THE 100 YEAR FLOOD IN AMOUNTS RANGING FROM 6 FEET TO 9 FEET. FLOODS EXCEEDING OR EXPECTED TO EXCEED THE 100 YEAR FLOOD ARE CALLED MAXIMUM PROBABLE FLOODS.

FLOODS OF THE 100 YEAR CATEGORY OR GREATER (MAXIMUM PROBABLE FLOODS) HAVE OCCURRED IN 1916, 1940 AND 1964 IN THE HENDERSON COUNTY AREA. THE 1916 FLOOD WAS THE LARGEST AND MOST DESTRUCTIVE THAT HAS OCCURRED IN THIS AREA.

FLOOD PROBLEMS NEAR HENDERSONVILLE AND THE SURROUNDING VICINITY ARE THE RESULT OF HIGH WATER ON MUD CREEK AND THE

TRIBUTARY STREAMS OF BAT FORK, DEVILS FORK AND KING CREEK. FOR THE MOST PART, THE FLOODPLAINS ALONG THESE STREAMS ARE USED FOR AGRICULTURAL PURPOSES. THERE ARE SOME AREAS IN HENDERSONVILLE AND THE IMMEDIATE VICINITY WHERE COMMERCIAL DEVELOPMENTS ARE WITHIN THE LIMITS OF LARGE FLOODS.

THE LARGEST KNOWN FLOOD ON ALL 4 STREAMS (MUD CREEK, BAT FORK, DEVILS FORK AND KING CREEK) IN AND NEAR HENDERSONVILLE OCCURRED JULY 16, 1916. THIS WAS ONE OF THE GREAT FLOODS OF ALL TIMES AND WAS 6 FEET HIGHER THAN ANY OTHER KNOWN FLOOD NEAR HENDERSONVILLE. THE FLOOD OCCURRED AS THE RESULT OF TERRIFIC HURRICANE RAINS WHICH DROPPED UP TO 20 INCHES OF RAIN OVER PARTS OF THE MUD CREEK WATERSHED IN 24 HOURS.

FLOODS ABOVE BANKFUL STAGES ON MUD CREEK, ACCORDING TO STREAM GAUGE RECORDS KEPT OVER A PERIOD OF 16 YEARS AT NAPLES, HAVE OCCURRED ON THE AVERAGE OF MORE THAN 2 PER YEAR. SUMMER FLOODS CAN BE VERY DAMAGING, BUT WINTER FLOODS IN THIS AREA DO NOT CAUSE SIGNIFICANT DAMAGE.

THE PRIMARY WATER COURSES OF MUD CREEK, BAT FORK, KINGS CREEK AND THEIR TRIBUTARIES ARE RELATIVELY FLAT WITH WIDE FLOOD PLAINS THROUGHOUT MOST OF THE DRAINAGE AREA.

THE CONSIDERATION OF FLOODS OF THE MAXIMUM PROBABLE MAGNITUDE ARE OF GREATER IMPORTANCE IN SOME AREAS THAN IN OTHERS; HOWEVER, THEY SHOULD NOT BE OVERLOOKED IN THE STUDY OF ANY FLOOD PROBLEM. THE MAXIMUM PROBABLE FLOOD ON MUD CREEK NEAR U.S. 64 EAST BRIDGE WOULD RISE TO ITS CREST 16 FEET ABOVE RIVER BANKS IN ABOUT 11 HOURS. ACCORDING TO FURTHER

T.V.A. STUDIES, BAT FORK WOULD RISE APPROXIMATELY 17 FEET IN 8 HOURS AND SIMILAR RAPID RATES COULD BE EXPECTED ON DEVILS FORK AND KING CREEK.

### FLOODWAYS

STUDIES AND DATA GATHERED BY THE T.V.A. SUGGEST THAT THERE IS A DEFINITE NEED FOR MAINTAINING AT LEAST MINIMUM FLOODWAYS FOR THE FRENCH BROAD RIVER. THE PURPOSE OF SUCH FLOODWAYS IS TO INSURE THAT THE WATERS OF FUTURE HIGH FLOODS WILL BE ACCOMMODATED WITHIN THE LIMITS OF THE RIVER AND ITS FLOODPLAIN.

TWO MAJOR POINTS TO CONSIDER ARE FIRST, LANDFILL STRUCTURES AND OTHER RESTRICTIONS TO THE FLOW OF WATER PLACED IN THE RIVER OR ON THE FLOODPLAIN COULD CAUSE INCREASED FLOOD ELEVATIONS UPSTREAM. CURRENTLY THE FRENCH BROAD RIVER RECLAMATION PROJECT, UNDERWAY IN TRANSYLVANIA, HENDERSON, BUNCOMBE AND MADISON COUNTIES, IS HELPING CLEAR OBSTRUCTIONS FROM THE RIVER AND RIVER BANKS. THIS MULTI-PURPOSE PROJECT SHOULD HELP ALLEVIATE SOME OF THE OBSTRUCTION PROBLEMS BY COMPLETELY REMOVING THE PROBLEM. A SECOND CONSIDERATION ON THE NEED FOR A FLOODWAY IS THAT AREAS SUBJECT TO FLOODING ARE HAZARDOUS FOR LIFE AND PROPERTY.

STUDIES HAVE BEEN MADE BY T.V.A. TO DELINEATE FLOODWAYS WHICH WOULD BE NECESSARY TO PASS WATERS OF THE 100 YEAR FLOOD LEVEL SHOULD IT OCCUR TODAY.

CURRENTLY, ONLY PORTIONS OF HENDERSON COUNTY HAVE BEEN MAPPED AND THE 100 YEAR FLOODWAY DELINEATED. THE MAPS

PERTAIN TO THE FRENCH BROAD RIVER IN HENDERSON COUNTY, MUD CREEK, BAT FORK, DEVILS FORK AND KING CREEK IN THE HENDERSONVILLE AREA. MUCH WORK REMAINS AS FAR AS DELINEATING FLOODWAYS IN HENDERSON COUNTY. CURRENT T.V.A. ESTIMATES ARE TO COMPLETE NECESSARY FIELD WORK FOR THE APPROPRIATE MAPPING BY LATE 1977 OR EARLY 1978.

### NATIONAL FLOOD INSURANCE PROGRAM

THE FEDERAL GOVERNMENT HAS SPENT MORE THAN \$9 BILLION ON FLOOD CONTROL SINCE 1936, NET LOSSES CONTINUE TO INCREASE AND THE HAZARD IS GREATER THAN EVER THAT FLOODS AND RELATED DAMAGE WILL OCCUR ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM.

THE PURPOSE OF THE NATIONAL FLOOD INSURANCE ACT OF 1968 WAS TO DISCOURAGE DEVELOPMENT IN FLOOD-PRONE AREAS BY OFFERING INEXPENSIVE, SUBSIDIZED FLOOD INSURANCE TO COMMUNITIES THAT AGREED TO ENACT AND ENFORCE FLOOD CONTROL AND LAND USE REGULATIONS.

THE INSURANCE PROGRAM WAS A FAILURE BECAUSE PARTICIPATION WAS VOLUNTARY AND FEW COMMUNITIES WERE WILLING TO ADOPT THE REQUIRED LAND USE CONTROLS. FLOOD INSURANCE REMAINED UNAVAILABLE AND FLOODPLAIN DEVELOPMENT CONTINUED.

THE ENACTMENT OF THE FLOOD DISASTER PROTECTION ACT OF 1973 CHANGED THIS. COMMUNITY PARTICIPATION IS NOW MANDATORY. COMMUNITIES THAT REFUSE TO COOPERATE WILL EXPERIENCE CUT-OFFS OF ALL FORMS OF FEDERAL MORTGAGE FINANCING IN FLOOD PRONE AREAS. LENDING INSTITUTIONS ARE PROHIBITED BY LAW



FROM MAKING REAL ESTATE OR MOBILE HOME LOANS IN FLOOD PRONE AREAS WHICH FAIL TO MEET FEDERAL FLOOD CONTROL STANDARDS.

REALIZING THE IMPACT OF THIS PROGRAM ON HENDERSON COUNTY AND THE IMPORTANCE OF FLOOD INSURANCE TO CITIZENS OF HENDERSON COUNTY, THE BOARD OF COUNTY COMMISSIONERS ADOPTED AND PASSED A RESOLUTION APPLYING FOR FLOOD INSURANCE IN HENDERSON COUNTY. RESPONSIBILITIES FOR A PERMIT SYSTEM AND ENFORCEMENT PROCEDURES WERE DELEGATED TO THE HENDERSON COUNTY HEALTH DEPARTMENT. IT REQUIRES ANY PERSON, FIRM OR CORPORATION DESIRING TO CONSTRUCT OR MAKE IMPROVEMENTS TO EXISTING STRUCTURES TO OBTAIN A PERMIT AND MEET CERTAIN OTHER REQUIREMENTS BEFORE CONSTRUCTION CAN BEGIN IN THE FLOODWAY. THIS SYSTEM WAS ADOPTED IN MARCH, 1975. BEFORE THE PROGRAM CAN BE 100 PERCENT EFFECTIVE, FURTHER DELINEATION OF THE FLOODWAY ON MAJOR TRIBUTARIES IN HENDERSON COUNTY MUST BE COMPLETED. AS STATED EARLIER IN THIS CHAPTER, T.V.A. ANTICIPATES THIS WILL BE COMPLETED IN LATE 1977.

#### CORRECTIVE AND PREVENTIVE MEASURES

THERE IS GENERALLY NO SINGLE FEASIBLE METHOD FOR REDUCING FLOOD DAMAGE. FLOOD PROBLEMS DIFFER DUE TO DIFFERENCES IN STREAMS AND THE NEIGHBORING PROPERTY.

CORRECTIVE MEASURES DEAL WITH EXISTING PROBLEMS. THEY INCLUDE FLOODPROOFING AND FLOOD INSURANCE TO REDUCE OR LIMIT THE DAMAGE WHEN IT OCCURS, EMERGENCY MEASURES TO DEAL WITH IMMEDIATE PROBLEMS WHEN THEY OCCUR AND FLOOD CONTROL TO



HELP REDUCE THE LIKELIHOOD OF FLOODS.

PREVENTIVE MEASURES SHOULD BE AIMED AT KEEPING FUTURE PROBLEMS FROM BECOMING WORSE THAN PRESENT ONES. THIS CAN BE ACCOMPLISHED IN PART BY FLOODPLAIN REGULATIONS OR PUBLIC DEVELOPMENT POLICIES. CORRECTIVE MEASURES SHOULD ATTEMPT TO KEEP THE WATER AWAY FROM MAN WHILE PREVENTIVE MEASURES SHOULD TRY AND KEEP MAN AWAY FROM THE WATER.

TOTAL ELIMINATION OF FLOODS IS EXPENSIVE, IF NOT IMPOSSIBLE. A CHOICE MUST BE MADE BETWEEN DIFFERENT LEVELS OF PROTECTION AND AN EYE ON THE EVER PRESENT, EVER INCREASING COST FACTOR.

CORRECTIVE MEASURES THAT COULD BE APPLIED IN HENDERSON COUNTY ARE AS FOLLOWS:

1. WATERSHED PROTECTION INVOLVING GOOD, BASIC LAND MANAGEMENT INCLUDING MEASURES AIMED AT RETAINING WATER WHERE IT FALLS. THE FEDERAL MULTIPLE PURPOSE WATERSHED PROJECTS PROGRAM (P.L. 566 PROGRAM) AUTHORIZES FINANCIAL ASSISTANCE FOR SMALL (LESS THAN 250,000 ACRES) WATERSHED IMPROVEMENTS AIMED AT SUCH ITEMS AS FLOOD CONTROL, SEDIMENTATION CONTROL, PUBLIC RECREATION AND FISH AND WILDLIFE DEVELOPMENT. IN HENDERSON COUNTY THIS WOULD REQUIRE MUTUAL AGREEMENT ON PROGRAMS AND POLICIES BETWEEN THE COUNTY AND PISGAH NATIONAL FOREST AUTHORITIES SINCE HENDERSON COUNTY'S WATERSHEDS ARE LOCATED WITHIN PISGAH NATIONAL FOREST BOUNDARIES (NORTH FORK OF THE MILLS RIVER AND BRADLEY CREEK).

PROPOSED PROJECTS MUST BE REVIEWED BY THE N. C. DEPARTMENT OF AIR AND WATER RESOURCES. THESE NORMALLY INCLUDE THE

DEVELOPMENT OF DAMS AND RESERVOIRS TO ACHIEVE THE PURPOSE OF THE PROGRAM. THIS AREA HAS A RATHER FIRM HISTORY OF REJECTING DAMS FOR POSSIBLE FLOOD CONTROL; HOWEVER, THIS ALTERNATIVE SHOULD NOT BE EXCLUDED IN HENDERSON COUNTY IF A PRACTICABLE AND MUTUALLY AGREEABLE PROGRAM COULD BE REACHED BETWEEN COUNTY AND FEDERAL OFFICIALS UTILIZING PISGAH NATIONAL FOREST AND THE 2 EXISTING WATERSHEDS. THE POSSIBILITY OF LOCATING NEW WATERSHEDS SHOULD ALSO NOT BE DISCOUNTED.

2. CHANNEL IMPROVEMENTS PROVIDE A GREATER CAPACITY FOR HANDLING FLOOD WATERS WITHIN THE CHANNEL ITSELF. CHANNEL IMPROVEMENTS ARE CURRENTLY BEING UNDERTAKEN IN CERTAIN PARTS OF HENDERSON COUNTY BY PRIVATE ENTERPRISE FOR CERTAIN CITIZENS WILLING TO PAY FOR THIS TYPE IMPROVEMENT AND SAFEGUARD. SUCH IMPROVEMENTS MAY CONSIST OF:

- A. DREDGING OR OTHERWISE INCREASING THE CHANNEL CROSS-SECTION AREA;
- B. CLEARING THE CHANNEL OF OBSTRUCTIONS WHICH SLOW THE FLOW OF WATER;
- C. PAVING THE CHANNEL TO REDUCE FRICTION AND INCREASE SPEED;
- D. STRAIGHTENING THE CHANNEL TO SHORTEN THE DISTANCE THAT FLOOD WATER MUST TRAVEL;
- E. RE-ROUTING THE CHANNEL;
- F. IMPOUNDING AREAS TO INCREASE STORAGE CAPACITY.

CHANNEL IMPROVEMENTS ARE AIMED AT MOVING WATER OUT OF AN AREA AS QUICKLY AS POSSIBLE. A SURVEY OF WHAT LIES DOWNSTREAM

THAT COULD POSSIBLY BACK WATER UP OR SERVE AS A BOTTLENECK IS A NECESSITY. MOVING OUT OBSTRUCTIONS ONLY TO HAVE THE WATER BACK UP FURTHER DOWNSTREAM SERVES NO PURPOSE AND MANY TIMES ACTUALLY NEGATES EFFORTS TO CONTROL FLOODING. THE RIVER RECLAMATION PROJECT OF THE 4 COUNTY REGION B AREA CONCERNS ITSELF WITH REMOVAL OF OBSTRUCTIONS IN THE FRENCH BROAD RIVER. TO DATE APPROXIMATELY 1 1/2 MILES OF THE FRENCH BROAD RIVER HAVE BEEN CLEARED IN HENDERSON COUNTY.

3. FLOODPROOFING PROVIDES A POSSIBLE ALTERNATIVE TO FLOOD DAMAGE LOSSES THROUGH THE PROTECTION OF INDIVIDUAL BUILDINGS, ALLOWING THEM TO WITHSTAND MODERATE OR LOW LEVELS OF FLOODING FOR SHORT PERIODS OF TIME.

POSSIBLE TECHNIQUES INCLUDE:

- A. CHECK VALVES ON SEWER OUTLETS;
- B. TEMPORARY BULKHEADS FOR SEALING DOORS;
- C. PUMPS FOR CLEARING WATER;
- D. THE ELEVATION OF CRITICAL EQUIPMENT ABOVE  
POSSIBLE FLOODWATER REACH.

4. FLOOD INSURANCE AS DISCUSSED EARLIER IS NEW, BUT IMPORTANT TO COMMUNITIES IN FLOOD-PRONE AREAS. THE FEDERAL GOVERNMENT MAKES LIMITED AMOUNTS OF INSURANCE AVAILABLE TO PROPERTY OWNERS BY MEANS OF A FEDERAL SUBSIDY. THE ACT REQUIRES THAT LOCAL GOVERNMENTS ADOPT AND ENFORCE LAND USE CONTROLS AND REGULATIONS THAT WILL GUIDE FUTURE DEVELOPMENT IN ORDER TO AVOID FUTURE FLOOD DAMAGE.

USE OF THE FLOOD INSURANCE PROGRAM COULD BE A SIGNIFICANT PART OF HENDERSON COUNTY'S PLAN FOR FUTURE LAND USE AND

DEVELOPMENT OF FLOODPLAIN REGULATIONS A MUST.

5. FLOOD FORECASTING ATTEMPTS TO FORECAST HOW MUCH WATER MAY BE EXPECTED IN A GIVEN AREA BY A GIVEN TIME. EMERGENCY ACTION SUCH AS EVACUATION, PROTECTION OF MERCHANDISE AND EMERGENCY FLOOD PROOFING DEPEND ON ADEQUATE WARNING TIME. THIS IS ESPECIALLY TRUE IN AREAS SUBJECT TO FLASH FLOODING WHERE THERE IS A RAPID RISE IN WATER. FLOOD WARNINGS FOR WESTERN NORTH CAROLINA ARE PROVIDED BY THE U. S. WEATHER BUREAU IN ASHEVILLE.

6. FRENCH BROAD RIVER CLEAN-UP. FLOODPLAIN AND STREAM CLEARANCE SHOULD BE CONTINUED BY HENDERSON COUNTY THROUGH THE LAND-OF-SKY RIVER RECLAMATION PROJECT.

THIS PROJECT IS CONCERNED WITH CLEANING DEBRIS FROM THE RIVER BANK AND THE STREAM ITSELF. BANK STABILIZATION, RECREATIONAL DEVELOPMENT AND WILDLIFE PROLIFERATION ARE ALSO MAJOR ELEMENTS OF THE EXISTING PROGRAM. THE TENNESSEE VALLEY AUTHORITY IS CURRENTLY PROVIDING FINANCIAL AND TECHNICAL ASSISTANCE TO LOCAL GOVERNMENTS THROUGH THE LAND-OF-SKY REGIONAL COUNCIL.

ELECTED OFFICIALS OF HENDERSON COUNTY SHOULD BE ENCOURAGED TO CONTINUE THE FRENCH BROAD RIVER CLEAN-UP AND EXTEND THE PROJECT TO INCLUDE MAJOR COUNTY STREAMS. THE HENDERSON COUNTY PLANNING BOARD HAS RECOMMENDED TO THE BOARD OF COMMISSIONERS A 1 CENT TAX LEVY TO HELP OFFSET THE COST OF THIS PROJECT.

7. FLOODPLAIN CLEARANCE ALTHOUGH VERY EXPENSIVE, CAN BE JUSTIFIED WHEN FLOODPLAIN DEVELOPMENT HAS GIVEN RISE TO



SERIOUS PUBLIC HEALTH HAZARDS.

FINANCIAL ASSISTANCE IS AVAILABLE THROUGH URBAN RENEWAL PROGRAMS. UNDER SUCH A PROGRAM, BLIGHTED AREAS MAY BE PURCHASED BY A PUBLIC AGENCY, CLEARED AND PUT IN CONDITION FOR RE-USE. THE LAND IS THEN SOLD FOR PRIVATE OR PUBLIC REDEVELOPMENT. THE FEDERAL GOVERNMENT PAYS  $\frac{3}{4}$  OR  $\frac{2}{3}$  OF THE COST DEPENDING ON POPULATION. REDEVELOPMENT OF THE CLEARED LAND COULD BE FOR OPEN SPACE USE SUCH AS RECREATION OR PARKING AREAS.

PREVENTIVE MEASURES CAN (1) COMPLEMENT THE PHYSICAL CONTROL STRUCTURE AND (2) PREVENT THE NEED OF EXPENSIVE PHYSICAL MEASURES.

1. ZONING CAN BE ONE OF THE MOST EFFECTIVE TOOLS FOR REGULATING DEVELOPMENT IN FLOODPLAINS. ALL CITIES AND COUNTIES IN NORTH CAROLINA ARE EMPOWERED BY THE STATE TO ADOPT ZONING ORDINANCES FOR THE PURPOSE OF PROMOTING HEALTH, SAFETY, MORAL OR GENERAL WELFARE OF THE COMMUNITY.

THE 3 MOST IMPORTANT JUSTIFICATIONS FOR ZONING OF FLOODPLAINS ARE: (1) PREVENTING ENCROACHMENTS ON FLOODPLAINS WHICH WOULD INCREASE THE HEIGHT AND EFFECT OF A FLOOD CAUSING ADDITIONAL DAMAGE TO PROPERTY ALONG THE STREAM OR RIVER, (2) PREVENTING CITIZENS FROM BEING VICTIMIZED BY THE PURCHASE OF FLOOD PRONE PROPERTY WHERE THE EFFECTS OF FLOOD DAMAGE ARE NOT KNOWN, AND (3) PROMOTING THE GENERAL WELFARE BY REDUCING THE EXPENDITURE OF PUBLIC FUNDS FOR PROTECTIVE WORKS OR DISASTER RELIEF.

WITHIN A ZONING ORDINANCE THE FLOODPLAIN SECTION SHOULD



INCLUDE: (1) A STATEMENT OF INTENTION, (2) AN EXPLANATION AND JUSTIFICATION OF DISTRICT BOUNDARIES, (3) A LIST OF PERMITTED OR EXCLUDED USES; AND (4) RESTRICTIONS ON THE HEIGHT AND PLACEMENT OF BUILDINGS AND STRUCTURES.

THE PRINCIPAL USES USUALLY FOUND IN FLOODPLAIN DISTRICTS ARE AGRICULTURE, RECREATION, PARKING AND OPEN SPACE USE WHICH WILL NOT OBSTRUCT THE FLOW OF WATER.

2. BUILDING CODES ARE MINIMUM CONSTRUCTION STANDARDS TO PROTECT OCCUPANTS FROM PHYSICAL OR FINANCIAL INJURY RESULTING FROM ACTS OF PROPERTY OWNERS. THEY ARE MINIMUM REQUIREMENTS CONCERNING SAFETY OF STRUCTURES FOR PRESERVATION OF LIFE AND HEALTH. BUILDING CODES ARE USEFUL IN REDUCING FLOOD LOSS. CONSTRUCTION STANDARDS SET FORTH IN BUILDING CODES MAY:

- A. SPECIFY THE MINIMUM ELEVATION OF FOOTINGS OR THE LOWEST FLOOR OF A STRUCTURE
- B. REQUIRE REINFORCEMENT TO WITHSTAND WATER PRESSURE AND HIGH VELOCITY FLOW.

3. POLICIES REGARDING LOCATION OF PUBLIC FACILITIES SUCH AS SCHOOLS AND HIGHWAYS CAN HELP REDUCE FLOOD DAMAGE. PUBLIC FACILITIES HAVE AN IMPACT ON FLOOD DAMAGE LOSSES IN THREE AREAS:

- A. BY THEIR SUSCEPTIBILITY TO DAMAGE;
- B. BY INCREASING FLOOD HEIGHTS ELSEWHERE; AND
- C. BY ENCOURAGING OR DISCOURAGING DEVELOPMENT IN THE FLOODPLAIN.

FACILITIES WHICH MUST UTILIZE FLOODPLAIN LOCATIONS IN

PART SHOULD BE DESIGNED SO AS TO MINIMIZE THEIR EFFECT ON FLOOD HEIGHTS. HIGHWAY DESIGN SHOULD INSURE THAT BRIDGES AND CULVERTS ARE SUFFICIENTLY OPEN TO PASS FLOOD WATERS. HIGHWAY ACCESS IN FLOODPLAIN AREAS SHOULD BE LIMITED TO DISCOURAGE STRIP DEVELOPMENT.

4. PUBLIC ACQUISITION: THE POLICE POWER MAKING POSSIBLE ZONING AND SUB-DIVISION REGULATIONS IN FLOODPLAINS IS NOT ALL-ENCOMPASSING. IT DOES NOT EXTEND TO LAND ACQUISITION FOR PUBLIC PURPOSE. THE PROCUREMENT OF LAND BY GOVERNMENTAL AGENCIES, ESPECIALLY MUNICIPALITIES CAN BE DONE BY:

- A. ACQUIRING TAX TITLE LAND;
- B. SOLICITING DONATIONS OF LAND;
- C. NEGOTIATED PURCHASE OF EMINENT DOMAIN

PUBLIC ACQUISITION ENABLES THE USE OF FLOODPLAINS FOR PARKS, PARKWAYS, WILDLIFE REFUGES AND FOR OTHER BENEFICIAL USES THAT WOULD SUFFER RELATIVELY LITTLE DAMAGE.

ACQUISITION CAN BE CARRIED OUT AT THE FEDERAL OR STATE LEVELS, BUT THERE IS NO SUBSTITUTE FOR LOCALLY-DIRECTED PROGRAMS.

SOURCE:

TENNESSEE VALLEY AUTHORITY, FLOODS ON THE FRENCH BROAD RIVER IN NORTH CAROLINA. (KNOXVILLE, TENNESSEE, 1973.)

REGION B - NORTH CAROLINA  
HENDERSON CO.

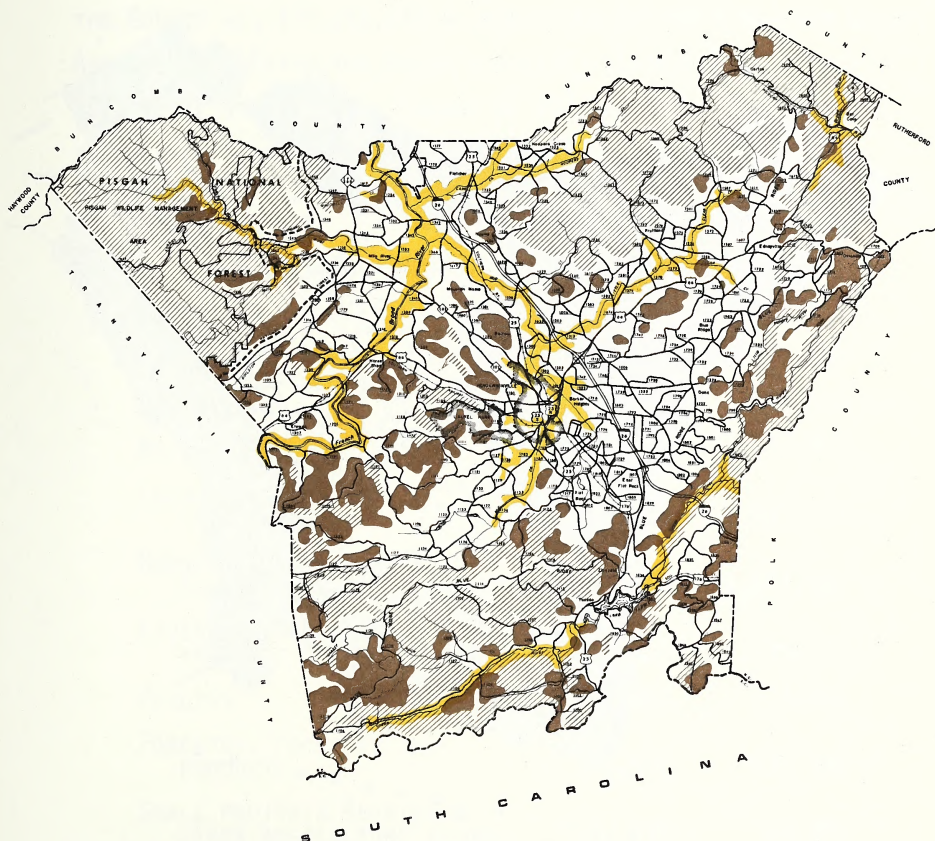
TOPOGRAPHY

- 0 to 15 PERCENT
- 15 to 25 PERCENT
- over 25 PERCENT
- FLOOD PLAIN



LAND OF SKY REGIONAL COUNCIL

DATE: PROJECT: JULY 1978



THE PREPARATION OF THIS MAP WAS FINANCIALLY ASSISTED BY THE LAND OF SKY REGIONAL COUNCIL. THE LAND OF SKY REGIONAL COUNCIL IS A PARTNERSHIP OF THE HENDERSON COUNTY, NORTH CAROLINA, AND THE HENDERSON COUNTY, SOUTH CAROLINA, GOVERNMENTS. THE LAND OF SKY REGIONAL COUNCIL IS A PARTNERSHIP OF THE HENDERSON COUNTY, NORTH CAROLINA, AND THE HENDERSON COUNTY, SOUTH CAROLINA, GOVERNMENTS.



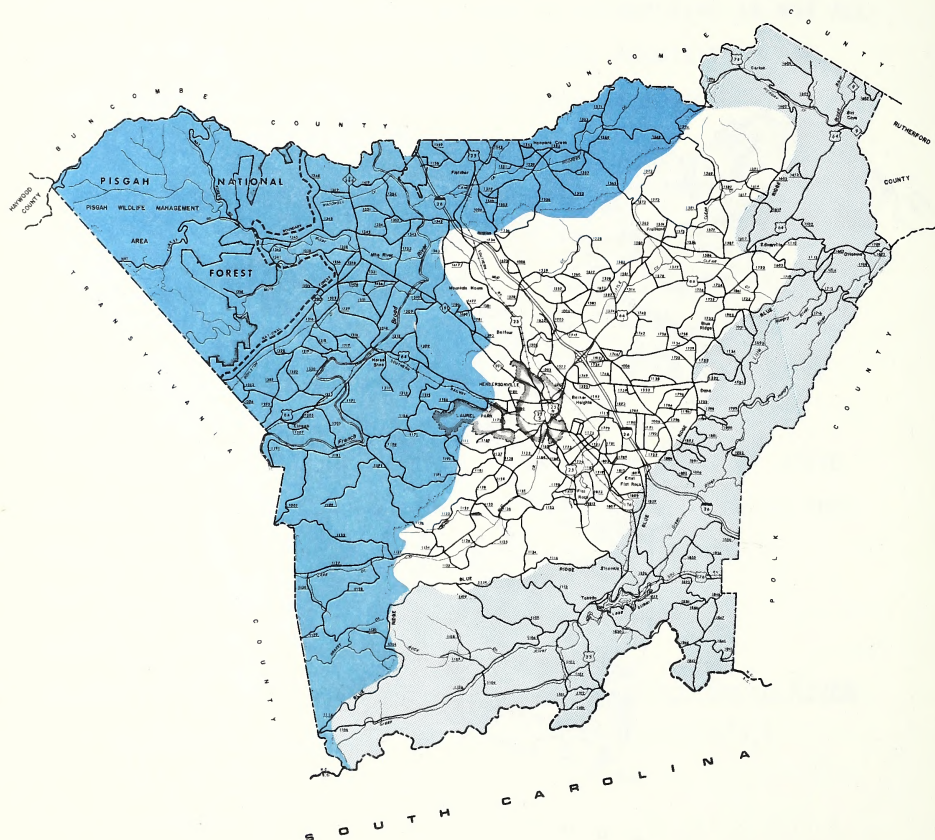
REGION 8 - NORTH CAROLINA  
HENDERSON CO.

**WATERSHEDS**

FRENCH BROAD RIVER  
 MUD CREEK  
 BROAD RIVER



END OF STATE REGIONAL COUNCIL



THE PROPERTIES OF THE MAP ARE COMPLETELY  
 GUARANTEED BY THE STATE OF NORTH CAROLINA.  
 THE STATE OF NORTH CAROLINA IS NOT RESPONSIBLE  
 FOR ANY LOSS OR DAMAGE TO ANY PROPERTY OR  
 PERSON OR ANY OTHER LOSS OR DAMAGE.

# CHAPTER 8 AGRICULTURE, INDUSTRIAL, COMMERCIAL AND RESIDENTIAL LAND USERS

## AGRICULTURE

IN 1975 THE TOTAL INCOME FROM AGRICULTURAL SOURCES IN THE COUNTY WAS \$28,241,139 AS PROJECTED BY THE HENDERSON COUNTY AGRICULTURAL EXTENSION AGENT'S OFFICE. THIS COMPARES TO A 1970 TOTAL AGRICULTURAL INCOME OF \$17,380,572. AGRICULTURAL INCOME FOR HENDERSON COUNTY IS LISTED IN TABLE 35.

TABLE 35  
 AGRICULTURAL INCOME, HENDERSON COUNTY

<u>COMMODITY</u>	<u>1970</u>	<u>1975</u>
APPLES	\$ 7,621,139	\$12,874,890
VEGETABLES	3,720,525	5,835,445
MILK	2,931,555	4,733,895
CORN, FEED GRAINS, HAY, SOYBEANS	307,200	1,213,852
NURSERY, GREENHOUSE & FLOWERS	796,650	1,657,602
LIVESTOCK & LIVESTOCK PRODUCTS	667,663	1,235,097
POULTRY	742,900	1,444
FORESTRY, FORESTRY PRODUCTS	363,558	530,500
SMALL FRUITS & BERRIES & OTHER AGRICULTURE INCOME	202,706	94,350
TOBACCO	<u>26,676</u>	<u>64,064</u>
	\$17,380,572	\$28,241,139



APPLES ARE THE MOST IMPORTANT AGRICULTURAL PRODUCT IN HENDERSON COUNTY. IN 1967 APPLE PRODUCTION BROUGHT AN ESTIMATED \$4,914,481 TO THE COUNTY'S ECONOMY. IT HAS INCREASED IN ALMOST EVERY YEAR SINCE THEN. THE 1970 APPLE PRODUCTION AMOUNTED TO \$7,621,139, 1975 AMOUNTED TO \$12,874,890, WITH A PROJECTED \$15,300,000 FOR 1976.

HENDERSON COUNTY PRODUCED APPROXIMATELY 70 PERCENT OF ALL APPLES PRODUCED IN NORTH CAROLINA. APPLE PRODUCTION HAS GROWN TO THE PRESENT ANNUAL CROP OF OVER 4,000,000 BUSHELS OF APPLES PRODUCED YEARLY.

THE SECOND MOST IMPORTANT AGRICULTURAL PRODUCT FROM THE STANDPOINT OF CASH RETURN IS THE GROWING OF VEGETABLES. IN 1967 THE GROSS INCOME FROM VEGETABLES WAS \$2,162,000. THE 1970 INCOME WAS \$3,720,525 AND GROSS INCOME FOR 1975 AMOUNTED TO \$5,835,445.

IN 1970, DAIRY PRODUCTION INCOME AMOUNTED TO \$2,931,555. IN 1975 DAIRY PRODUCTION INCOME AMOUNTED TO \$4,733,895. THIS AMOUNTED TO AN INCREASE OF \$1,802,340 OVER A 5 YEAR PERIOD.

ACCORDING TO THE 1975 SUMMARY OF DATA COMPILED BY THE HENDERSON COUNTY AGRICULTURAL EXTENSION AGENT, THE FOLLOWING STATISTICS ARE PRESENTED FOR HENDERSON COUNTY:

NUMBER OF FARMS (1970 CENSUS)	947
AVERAGE SIZE OF FARM	93 ACRES
TOTAL VEGETABLE ACREAGE	3,702
TOTAL CORN ACREAGE	12,000
TOTAL NURSERY ACREAGE	500
NUMBER OF APPLE GROWERS	400

TABLE 36

## 1976 NORTH CAROLINA LAND UTILIZATION SURVEY

(Crops harvested in 1975)

<u>HENDERSON COUNTY</u>	<u>ACRES</u>
Total land in tracts of 10 or more acres	184,009
Non-farm land	54,252
Land in farms	129,757
Harvested cropland	17,869
Idle cropland	10,436
Improved pasture	13,713
Unimproved open pasture	4,460
All other land (homesites, woods, waste, etc.)	83,279
Corn for grain (feed)	1,972
Corn for silage	3,272
Sorghum, milo for silage	6
Tobacco harvested	15
Oats and barley combined	5
Rye combined	124
Soybeans combined for beans	129
All hay	2,397
Coastal Bermuda grass cut for hay	11
Irish potatoes (all)	64
Sweet potatoes (all)	27
Cabbage grown for sale	84
Tomatoes grown for sale	4
Other crops	9,781
Christmas trees (all ages) 1976	5
Apple trees of bearing age in 1976	611,103

APPLE PACKING HOUSES	29
NUMBER OF DAIRIES	29
VEGETABLE PACKING HOUSES	9

IN HENDERSON COUNTY THE NUMBER OF ACTIVE FARMS IS DECLINING. THE SIZE OF THE REMAINING FARMS IN TERMS OF TOTAL ACREAGE APPEARS TO BE INCREASING RESULTING IN FEWER BUT LARGER SPECIALIZED FARMS.

THE COUNTY'S PRIME AGRICULTURAL LAND IS LOCATED ALONG THE FLOODPLAIN OF THE FRENCH BROAD AND MILLS RIVER IN MILLS RIVER AND HENDERSONVILLE TOWNSHIPS. THE LAND IS USED PRIMARILY FOR PASTURING OF DAIRY COWS AND PRODUCTION OF FEED CROPS. BLUE RIDGE, CLEAR CREEK, HOOPERS CREEK AND EDNEYVILLE TOWNSHIPS ALSO CONTAIN VALUABLE AGRICULTURAL LAND DEVOTED TO APPLE AND VEGETABLE PRODUCTION.

IN RECENT YEARS SOME OF HENDERSON COUNTY'S PRIME AGRICULTURAL LAND HAS BEEN SOLD TO DEVELOPERS FOR URBAN TYPE RESIDENTIAL DEVELOPMENT. A CHANGE IN THE PRESENT TAX STRUCTURE OR OTHER INCENTIVE SHOULD BE AVAILABLE TO FARMERS TO HELP PRESERVE PRIME AGRICULTURAL LAND FROM THE PRESSURES OF INDUSTRIAL AND RESIDENTIAL-TYPE DEVELOPMENT. ONCE AGRICULTURAL LAND HAS BEEN SOLD AND TAKEN OUT OF PRODUCTION, IT IS DIFFICULT, IF NOT IMPOSSIBLE, TO BRING THE LAND BACK INTO PRODUCTION.

## INDUSTRIAL

### GENERAL

BY 1986 IT IS ESTIMATED THAT ALMOST 8,000 ADDITIONAL PEOPLE WILL BE ADDED TO THE COUNTY'S POPULATION.

THIS EXPECTED GROWTH WILL CREATE AN EXPANDING DEMAND FOR A DIMINISHING SUPPLY OF VACANT LAND. INDUSTRY, WHICH WILL PROVIDE MUCH OF THE BASIC EMPLOYMENT NEEDED FOR THIS ANTICIPATED GROWTH HAS LOCATIONAL REQUIREMENTS THAT ARE AS CRITICAL AS ANY LAND USE.

### LOCATION REQUIREMENTS

INDUSTRIAL AREAS ARE GENERALLY THE LEAST FLEXIBLE IN THEIR SITE REQUIREMENTS. INDUSTRIAL USES SHOULD BE GIVEN CONSIDERATION WHEN ZONING DISTRICT BOUNDARIES ARE DRAWN. LAND FOR INDUSTRIAL SITES SHOULD BE EXAMINED FROM A STANDPOINT OF LOCATION, PHYSICAL CHARACTERISTICS AND AVAILABILITY OF SERVICES.

INDUSTRIAL SITES SHOULD BE AS LEVEL AS POSSIBLE. FOR LARGE PLANTS THE GROUND SLOPE SHOULD NOT EXCEED 5%. SMALL INDUSTRIAL BUILDINGS CAN USE STEEPER LAND, BUT LAND WITH A SLOPE OF MORE THAN 10% SHOULD BE AVOIDED. THE SOIL SHOULD ALSO BE WELL DRAINED AND HAVE GOOD LOAD-BEARING PROPERTIES.

UTILITIES SHOULD BE AVAILABLE AT A REASONABLE COST INCLUDING WATER, SEWER, NATURAL GAS, ELECTRICITY AND SOLID WASTE DISPOSAL. WHERE PUBLIC WATER, SEWER OR SOLID WASTE DISPOSAL FACILITIES ARE NOT AVAILABLE, SITES SHOULD BE OF SUCH CONFIGURATION AND SOIL CHARACTERISTICS THAT THE INDUSTRY MAY PROVIDE THESE SERVICES THEMSELVES IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

AREAS DESIGNATED FOR INDUSTRIAL USES SHOULD BE COMPATIBLE WITH EXISTING AND PLANNED SURROUNDING LAND USE PATTERNS. THE MATTER OF COMPATIBILITY EXTENDS TO OTHER INDUSTRIAL USES AS

WELL AS NON-INDUSTRIAL (ONE INDUSTRY SHOULD NOT BE A NUISANCE TO ANOTHER INDUSTRY). ONCE THE PRIME INDUSTRIAL SITES HAVE BEEN IDENTIFIED, REGULATORY CODES SUCH AS ZONING, SHOULD PROHIBIT RESIDENTIAL USES IN THOSE AREAS. IF NOT CONTROLLED, SCATTERED RESIDENTIAL DEVELOPMENT MAY MAKE IT UNFEASIBLE FOR INDUSTRIES TO ASSEMBLE LARGE ENOUGH TRACTS OF LAND. A MIXTURE OF RESIDENTIAL AND INDUSTRIAL LAND USES MAY OCCUR, AND INDEED EXAMPLES OF THE TWO USES BEING MIXED CAN BE FOUND IN THE COUNTY, CREATING AN UNDESIRABLE RESIDENTIAL ENVIRONMENT AND PREVENTING INDUSTRIAL EXPANSION.

"HEAVY" INDUSTRIES (GENERATING HEAVY TRAFFIC, NOISE, SMOKE OR FUMES) SHOULD BE ISOLATED FROM OTHER LAND USES BY VARIOUS METHODS SUCH AS AGRICULTURAL BELTS, OPEN SPACE, PARKS OR FOREST LAND.

"LIGHT" INDUSTRIES (MANUFACTURING SMALL ITEMS, WAREHOUSING WITH NO EXCESSIVE NOISE, ETC.) ARE MORE COMPATIBLE WITH SOME URBAN ACTIVITIES SUCH AS OFFICE BUILDINGS; HOWEVER, RESIDENTIAL LAND USES SHOULD BE PROPERLY REMOVED OR BUFFERED FROM ALL INDUSTRIAL ACTIVITIES.

SITES FOR INDUSTRIAL LOCATIONS SHOULD BE NEAR REGIONAL AND INTER-REGIONAL TRANSPORTATION FACILITIES SUCH AS:

1. MAJOR HIGHWAYS AND INTERSTATE
2. AIRPORTS
3. RAILROADS
4. UTILITY TRANSMISSION LINES

THE SIZE OF THE PROPOSED INDUSTRIAL SITES SHOULD BE LARGE ENOUGH TO MEET THE NEEDS OF MODERN INDUSTRY. THIS WILL



INCLUDE SITES OF 5 OR FEWER ACRES FOR INTENSIVE USERS--THOSE THAT MIGHT BE FOUND IN URBAN RENEWAL PROJECTS--TO SITES AS LARGE AS SEVERAL HUNDRED ACRES IN THE RURAL SECTIONS OF THE COUNTY.

LAND NEAR COLLEGES OR TECHNICAL INSTITUTES, IF OTHERWISE SUITABLE, SHOULD BE RESERVED AND PROMOTED FOR RESEARCH AND DEVELOPMENT OR INDUSTRIAL OFFICE USES. MANY UNIVERSITIES AND TECHNICAL SCHOOLS ARE ENGAGED IN INDUSTRIALLY RELATED RESEARCH AND TECHNICAL TRAINING. TECHNICAL INSTITUTES PROVIDE A MAN-POWER POOL FOR INDUSTRY. SOME INDUSTRIES ACTIVELY SEEK CLOSE TIES WITH TECHNICAL INSTITUTIONS. THERE IS A MUTUAL BENEFIT, SINCE THE INSTITUTIONS THEMSELVES FIND IN INDUSTRY A PROVING GROUND FOR NEW IDEAS AND TECHNIQUES. ALSO, NEARBY INDUSTRIES PROVIDE PRACTICAL EXPERIENCE FOR INDUSTRIAL TRAINEES.

### EXISTING INDUSTRIAL AREAS

INDUSTRIAL ACTIVITIES ARE FOUND THROUGHOUT HENDERSON COUNTY IN MANY DIFFERENT TYPES. HENDERSON COUNTY HAS INDUSTRIAL PLANTS ENGAGED IN THE PRODUCTION OF WOMEN'S CLOTHES, BICYCLE BRAKES, CANVAS PRODUCTS, PACKAGING MATERIALS, HOSIERY, OUTDOOR LIGHTING, BRICKS, RUGS, MACHINE TOOLS, OFFICE FURNITURE, CHILDREN'S APPAREL, APPLE PROCESSING, METAL ANCHORS AND INDUSTRIAL CERAMICS.

THE COUNTY, THROUGH THE HENDERSONVILLE CHAMBER OF COMMERCE HAS IN THE PAST MADE A CONCERTED EFFORT TO ATTRACT NEW, LIGHT, CLEAN INDUSTRY. THE CHAMBER DISCOURAGES HEAVY WATER USERS AND HEAVY WASTE PRODUCERS. THEY ENCOURAGE

INDUSTRIES WITH STABLE FUTURES AND THOSE WHO PAY WAGES EQUAL TO OR MORE THAN STATEWIDE AVERAGES. HENDERSON COUNTY HAS A GOOD INDUSTRIAL DEVELOPMENT PROGRAM THROUGH THE HENDERSONVILLE CHAMBER OF COMMERCE AND INDICATIONS ARE THAT THE SOUND RECRUITMENT OF CLEAN, LIGHT INDUSTRY WILL CONTINUE.

THE MAJOR INDUSTRIAL AREA IS LOCATED NORTH OF HENDERSONVILLE IN HOOPERS CREEK TOWNSHIP. CANE CREEK INDUSTRIAL PARK, LOCATED ON THE OLD ASHEVILLE AIRPORT PROPERTY, IS IN A GOOD LOCATION AND SHOULD NOT CAUSE ANY SERIOUS PROBLEMS FOR SURROUNDING LAND USE. WATER DISTRIBUTION LINES ARE EXPECTED TO BE COMPLETED IN THE FALL OF 1976. THE AREA ALREADY HAS WATER FROM THE CITY OF ASHEVILLE. PLANS ARE TO JOIN THE WATER LINES OF THE CITY OF HENDERSONVILLE AND ASHEVILLE, DISCONNECT SERVICE FROM THE ASHEVILLE SIDE, AND SERVE THE INDUSTRIAL PARK AND SURROUNDING AREA FROM THE HENDERSONVILLE WATER SYSTEM. DETAILED EXPLANATIONS ARE PROVIDED IN THE WATER AND WASTEWATER CHAPTER.

REMAINING INDUSTRIAL LOCATIONS ARE SCATTERED ALONG U.S. 25 NORTH OF HENDERSONVILLE AND U.S. 25 SOUTH OF HENDERSONVILLE, U.S. 176 AND U.S. 64 HAVE SCATTERED INDUSTRIAL DEVELOPMENT, MOST OF IT, WITH THE EXCEPTION OF CANE CREEK INDUSTRIAL PARK, LOCATED NEAR THE CITY OF HENDERSONVILLE.

#### FUTURE INDUSTRIAL LOCATIONS

FUTURE INDUSTRIAL SITES HAVE BEEN IDENTIFIED IN A LAND-OF-SKY REGIONAL STUDY ENTITLED SELECTED INDUSTRIAL SITES. POSSIBLE INDUSTRIAL SITES FOR HENDERSON COUNTY INCLUDE, BUT

ARE NOT LIMITED TO, THE FOLLOWING:

CANE CREEK INDUSTRIAL PARK - LOCATED IN HENDERSON COUNTY NEAR FLETCHER. NINETY ACRES OF FLAT, LEVEL GROUND.

HENDERSONVILLE INDUSTRIAL PARK - LOCATED IN HENDERSON COUNTY NORTH OF HENDERSONVILLE. EIGHTEEN ACRES OFF HIGHWAY 25.

JOHNSON FARM - LOCATED IN HENDERSON COUNTY NEAR THE BRICKTON COMMUNITY 7 MILES NORTH OF HENDERSONVILLE. TWO HUNDRED AND TWENTY ACRES OF GENTLY ROLLING LAND OFF HIGHWAY 191.

OSBORNE SITE - LOCATED IN HENDERSON COUNTY NEAR MILLS RIVER 7 MILES NORTHWEST OF HENDERSONVILLE. THIRTY-THREE ACRES LOCATED ON MILLS GAP ROAD.

POWELL GRIMES SITE - LOCATED NEAR FLETCHER, 148 ACRES NEAR CANE CREEK ROAD.

THREE MOUNTAINEERS SITE - 9 MILES NORTH OF HENDERSONVILLE NEAR FLETCHER. SIXTY-FOUR ACRES ADJACENT TO U.S. 25 NEAR CANE CREEK ROAD.

TODD SITE - LOCATED ON U.S. 25 NEAR BRICKTON. FIFTY-FIVE ACRES 7 MILES NORTH OF HENDERSONVILLE.

YOUNGBLOOD-JUSTICE SITE - LOCATED NEAR FLETCHER.  
FORTY ACRES OFF CANE CREEK ROAD

THIS LIST DOES NOT REPRESENT ALL POSSIBLE INDUSTRIAL SITES IN HENDERSON COUNTY. ADDITIONAL INFORMATION ON INDUSTRIAL SITES MAY BE OBTAINED BY CALLING THE HENDERSONVILLE CHAMBER OF COMMERCE. COPIES OF THE INDUSTRIAL SITE STUDY MAY BE OBTAINED FROM THE LAND-OF-SKY REGIONAL COUNCIL IN ASHEVILLE, N. C.

COMMERCIAL

GENERAL

COMMERCIAL AREAS AS DESIGNATED IN THE HENDERSON COUNTY LAND USE PLAN INCLUDE BOTH RETAIL AND WHOLESALE ESTABLISHMENTS AS WELL AS BUSINESS, CONSUMER AND PROFESSIONAL SERVICES. SUCH BUSINESS AS RETAIL AND WHOLESALE ESTABLISHMENTS AND SERVICES ARE GENERALLY FOUND IN THE CITIES AND TOWNS WHERE TYPICAL MIXTURE OF ACTIVITIES ARE DETERMINED BY THE SIZE AND LEVELS OF INCOME IN THE TRADE AREA.

HIGHWAY-ORIENTED COMMERCIAL ACTIVITIES--SUCH AS CONSUMER (LOCAL AND TOURIST) SERVICES, CONVENIENCE RETAIL OUTLETS, LARGER GENERAL COMMERCIAL ACTIVITIES, AND "GENERAL STORE" TYPE BUSINESSES ARE SCATTERED THROUGHOUT THE COUNTY ALONG MAJOR THOROUGHFARES. LARGE AMOUNTS OF COMMERCIAL USES ARE FOUND ALONG U.S. 25, 176, 64 AND N.C. 191. THE USES LOCATED ON THESE HIGHWAYS SUPPLEMENT SIMILAR TYPES OF COMMERCIAL ACTIVITIES LOCATED IN THE CITY OF HENDERSONVILLE.



COMMERCIAL DEVELOPMENTS WHICH PRESENT DEVELOPMENT PROBLEMS ARE GENERALLY IN AREAS WHERE THEY ARE MIXED WITH RESIDENTIAL AND OTHER INCOMPATIBLE LAND USES.

### NEIGHBORHOOD SHOPPING AREAS

NEIGHBORHOOD SHOPPING AREAS PROVIDE OUTLETS FOR FOOD, DRUGS AND HARDWARE, AND PERSONAL SERVICE ESTABLISHMENTS SUCH AS LAUNDROMATS, BARBER SHOPS AND BEAUTY SALONS. THEY ARE GEARED TO THE DAILY NEEDS OF NEARBY RESIDENTIAL AREAS. IN AREA THEY RANGE FROM 3 TO 6 ACRES AND SERVE A TRADING AREA BETWEEN 3,000 AND 5,000 PERSONS.

A NEIGHBORHOOD SHOPPING AREA SHOULD BE LOCATED AT THE INTERSECTION OF MINOR THOROUGHFARES OR COLLECTOR STREETS, NEAR THE CENTER OF THE NEIGHBORHOOD IT SERVES. GENERALLY, MAJOR THOROUGHFARES SHOULD BE AVOIDED; HOWEVER, MAJOR THOROUGHFARES SHOULD SKIRT THE PERIMETERS OF NEIGHBORHOODS, NOT GO THROUGH THEM. THUS, A SHOPPING AREA ABUTTING A MAJOR THOROUGHFARE WOULD NOT ORDINARILY BE NEAR THE CENTER OF A NEIGHBORHOOD.

ALTHOUGH THEY SHOULD BE AT INTERSECTIONS, NEIGHBORHOOD SHOPPING AREAS SHOULD BE CONFINED TO ONE QUADRANT OF THE INTERSECTION FOR SAFETY REASONS AS WELL AS APPEARANCE.

THEY SHOULD BE SUFFICIENTLY REMOVED FROM OTHER COMMERCIAL DEVELOPMENT TO PREVENT THEIR GROWING TOGETHER INTO A COMMERCIAL STRIP. IN LOW DENSITY SINGLE FAMILY AREAS, NEIGHBORHOOD SHOPPING AREAS SHOULD BE SPACED BETWEEN 1 AND 3 MILES APART. IN MEDIUM DENSITY AREAS THEY COULD BE AS CLOSE AS



1/2 MILE. EVEN CLOSER SPACING IS APPROPRIATE IN HIGH DENSITY RESIDENTIAL AREAS.

GROUND SLOPE SHOULD NOT EXCEED 10% IN NEIGHBORHOOD SHOPPING AREAS BECAUSE OF BUILDING SIZE AND PARKING REQUIREMENTS.

### COMMUNITY SHOPPING AREAS

COMMUNITY SHOPPING AREAS SERVE A GROUP OF SEVERAL NEIGHBORHOODS. THE TRADING AREA MAY INCLUDE FROM 15,000 TO 20,000 PEOPLE. MERCHANDISE AVAILABLE IN THESE AREAS WILL INCLUDE THE SAME TYPES OF ITEMS AVAILABLE IN NEIGHBORHOOD SHOPPING AREAS, PLUS VARIETY STORES, AUTOMOTIVE SUPPLIES, SMALL APPAREL SHOPS AND THE LIKE. GENERALLY, FOOD AND DRUG STORES WILL BE LARGER THAN THEIR COUNTERPARTS IN THE NEIGHBORHOOD SHOPPING AREAS. THESE AREAS SHOULD COVER FROM 10 TO 30 ACRES IN SIZE. THEY SHOULD BE AT INTERSECTIONS OF MAJOR OR MINOR THOROUGHFARES BECAUSE MOST OF THEIR CUSTOMERS WILL ARRIVE BY AUTOMOBILE.

COMMUNITY SHOPPING AREAS ARE INCOMPATIBLE IN SINGLE FAMILY RESIDENTIAL AREAS UNLESS ADEQUATE SCREENING, BUFFERING, TRANSPORTATION NETWORK AND RELATED FACILITIES ARE PROVIDED. CHURCHES, SMALL PROFESSIONAL OFFICES, PARKS AND PUBLIC BUILDINGS CAN SERVE A USEFUL ROLE AS TRANSITIONAL USES BETWEEN SHOPPING AREAS AND RESIDENTIAL NEIGHBORHOODS.

PEDESTRIAN TRAFFIC WILL BE HEAVY IN AND AROUND MOST COMMUNITY SHOPPING AREAS, AND SAFE, CONVENIENT PEDESTRIAN ROUTES SHOULD BE PROVIDED.

## REGIONAL SHOPPING CENTERS

REGIONAL SHOPPING CENTERS SERVE A MUCH LARGER TRADING AREA THAN COMMUNITY SHOPPING AREAS. THE TRADING AREA MAY COVER A PART OR ALL OF SEVERAL COUNTIES. A FULL RANGE OF RETAIL OUTLETS CAN BE EXPECTED INCLUDING MAJOR DEPARTMENT STORES. IN ADDITION, MANY OFFICES AND INSTITUTIONS WILL BE ATTRACTED TO REGIONAL CENTERS. AT LEAST 60 ACRES OF NEARLY LEVEL LAND WILL BE NEEDED FOR A REGIONAL SHOPPING CENTER. THE GROUND SLOPE SHOULD NOT EXCEED 5% UNLESS MULTI-LEVEL ENTRANCES AND PARKING LOTS ARE PROPOSED.

REGIONAL SHOPPING CENTERS SHOULD BE LOCATED AT POINTS OF OPTIMUM ACCESS TO THEIR TRADE AREAS. THIS SUGGESTS SITES CONVENIENT TO FREEWAY INTERCHANGES WITH MAJOR THOROUGHFARES. SITES SHOULD BE VISIBLE FROM ROADS.

REGIONAL CENTERS ARE LIKELY TO ATTRACT SECONDARY USES OF EVEN WIDER VARIETY AND HIGHER INTENSITY THAN COMMUNITY CENTERS. THESE MAY INCLUDE HIGH DENSITY RESIDENCES, OFFICES AND PROFESSIONAL PARKS, MAJOR PUBLIC FACILITIES AND OFTEN SOME TYPES OF INDUSTRY. FOR THIS REASON, REGIONAL SHOPPING CENTERS SHOULD BE CAPABLE OF BEING SERVED BY ALL PUBLIC UTILITIES--GAS, ELECTRICITY, WATER, SEWER, TELEPHONE EXCHANGE, STORM SEWERS, ETC. THE DEVELOPMENT OF REGIONAL SHOPPING CENTERS CANNOT BE VIEWED ONLY IN TERMS OF THE PROPOSAL AT HAND, BUT ALSO IN TERMS OF WHAT TYPE OF DEVELOPMENT MAY FOLLOW.

SINCE REGIONAL COMMERCIAL AREAS WILL ALSO BE MAJOR EMPLOYMENT CENTERS AS WELL AS TRAFFIC GENERATORS, PUBLIC TRANSPORTATION TO THE SITE IS DESIRABLE.

LAND PARCEL CONFIGURATION IS AN IMPORTANT CONSIDERATION FOR COMMERCIAL AREAS OF BOTH COMMUNITY AND REGIONAL SCALE. WHILE THERE IS PROBABLY NO SUCH THING AS A "BEST SHAPE" FOR LAND PARCELS, A LONG, NARROW PARCEL OF LAND PARALLELING A ROADWAY WILL YEILD A LONG, NARROW DEVELOPMENT WITH LITTLE OPPORTUNITY FOR GOOD SITE PLANNING. REGIONAL CENTERS SHOULD BE DESIGNATED WHERE INDIVIDUAL LAND PARCELS ARE LARGE ENOUGH TO BE DEVELOPED FOR THE PROPOSED USE WITHOUT THE NEED FOR CONSOLIDATING OWNERSHIPS. WHERE THERE IS NO ALTERNATIVE TO CONSOLIDATION, THIS SHOULD BE ENCOURAGED.

SITES DESIGNATED FOR REGIONAL CENTERS SHOULD OFFER OPPORTUNITY FOR SEPARATING "THROUGH" TRAFFIC FROM THAT DESIGNATED FOR THE SHOPPING CENTER. THIS COULD INVOLVE SUCH TECHNIQUES AS ADDITIONAL TRAVEL LANES ON MAIN ROADS TO THE CENTER; SERVICE ROADS; LEFT-TURN LANES; TRAFFIC SIGNALS AND SECONDARY POINTS OF INGRESS AND EGRESS FOR TRAFFIC WITH ORIGINS AND DESTINATIONS NEAR THE REGIONAL COMMERCIAL AREA.

#### STRIP COMMERCIAL DEVELOPMENT

MANY THOROUGHFARES IN HENDERSON COUNTY ARE LINED WITH ROADSIDE COMMERCIAL DEVELOPMENT. SOME DO NOT PROVIDE ENOUGH OFFSTREET PARKING, MOST DISPLAY ADVERTISING SIGNS WHICH ARE TOO LARGE AND/OR TOO NUMEROUS. HOUSES ARE OFTEN MIXED IN WITH BUSINESSES. ENTRANCES AND EXITS AT BUSINESS ESTABLISHMENTS OFTEN CREATE TRAFFIC HAZARDS.

THE RESULT IS AN UNSAFE, CONGESTED, VISUAL DISORDER WHICH IS NEITHER A DESIRABLE RESIDENTIAL ENVIRONMENT NOR A

GOOD PLACE TO DO BUSINESS.

### CHARACTERISTICS AND EFFECTS OF STRIP DEVELOPMENT

"STRIP COMMERCIAL" AREAS ARE NARROW, ELONGATED STRIPS OF LAND BORDERING ROADS WHICH ARE PRINCIPALLY DEVELOPED FOR A WIDE VARIETY OF COMMERCIAL LAND USES. STRIP DEVELOPMENT USUALLY HAS SOME, IF NOT ALL, OF THE FOLLOWING CHARACTERISTICS:

1. OVERCROWDING OF THE LAND; INADEQUATE BUILDING SETBACKS AND INSUFFICIENT PARKING AND LOADING FACILITIES.
2. TRAFFIC CONGESTION OCCURS IN THESE AREAS BECAUSE
  - A. A MIXING OF BUSINESS TRAFFIC WITH THROUGH TRAFFIC
  - B. TOO MANY POINTS OF ENTRANCE AND EXIT
  - C. EXCESSIVE VEHICLE TURNING MOVEMENTS
  - D. POOR SIGHT DISTANCE
  - E. LOWERED SPEED LIMITS
  - F. CONFUSION OF ADVERTISING SIGNS AND TRAFFIC CONTROL SIGNS
3. POOR PHYSICAL APPEARANCE OF BUILDINGS
4. SELF-PERPETUATION OR A TENDENCY TO CONTINUE GROWING ALONG THE LENGTH OF THE ROAD.

THE PRIMARY PURPOSE OF A THOROUGHFARE IS TO CARRY TRAFFIC FROM ONE POINT TO ANOTHER. THIS IS IN CONTRAST TO A LOCAL ACCESS STREET, THE PRIMARY PURPOSE OF WHICH IS TO GIVE ACCESS TO ABUTTING PROPERTIES. IN OTHER WORDS, THOROUGHFARES ARE COMMUNITY SERVING FACILITIES, WHEREAS LOCAL ACCESS STREETS



SERVE A MORE LOCALIZED GROUP OF PROPERTY OWNERS.

CONSIDERING THE VERY LARGE INVESTMENT OF PUBLIC FUNDS IN THE THOROUGHFARE NETWORK, THE COMMUNITY MUST DECIDE WHETHER ANY INDIVIDUAL PROPERTY OWNER HAS AN INHERENT RIGHT TO DEVELOP ABUTTING PROPERTY IN SUCH A WAY AS TO DETRACT FROM THE EFFECTIVENESS OF THE THOROUGHFARE.

STRIP COMMERCIAL DEVELOPMENT DETRACTS FROM THE TRAFFIC CARRYING CAPACITY OF A THOROUGHFARE. TURNING MOVEMENTS INTO AND OUT OF ROADSIDE BUSINESSES CONFLICT WITH THE FORWARD MOVEMENT OF TRAFFIC. THIS CAUSES SLOWDOWNS AND COLLISIONS. SOMETIMES IT BECOMES NECESSARY TO ADD A SPECIAL TURNING LANE OR BYPASS THE ENTIRE COMMERCIAL AREA. ALL OF THIS AT A TREMENDOUS COST TO THE GENERAL PUBLIC.

### TREATMENT POSSIBILITIES

ONLY A FEW TECHNIQUES ARE AVAILABLE FOR IMPROVING CONDITIONS IN STRIP COMMERCIAL AREAS. THE REAL PROBLEM IN COMMUNITIES LIES IN THE RELUCTANCE TO USE THESE TOOLS. ANY REAL EFFORTS TO IMPROVE STRIP COMMERCIAL DEVELOPMENT AND PREVENT THE DEVELOPMENT OF NEW ONES WILL HAVE TO BE INITIATED BY THE HENDERSON COUNTY PLANNING BOARD AND IMPLEMENTED BY THE COUNTY COMMISSIONERS. THE FOLLOWING ARE SOME ALTERNATIVES AVAILABLE TO AID AND CONTROL COMMERCIAL DEVELOPMENT:

1. ZONING -- ZONING IS THE COMMUNITIES' MOST IMPORTANT TOOL FOR THE IMPLEMENTATION OF A LAND USE PLAN.

COUNTY-WIDE APPLICATION OF THE HENDERSON COUNTY ZONING ORDINANCE CAN BE AN EFFECTIVE TOOL TO CORRECT SOME OF THE



WORST EFFECTS OF COMMERCIAL STRIPS AND TO HELP PLAN AND IN SOME CASES PREVENT THE FORMATION OF NEW ONES.

## 2. GUIDING NEW DEVELOPMENT THROUGH --

A. SUBDIVISION ORDINANCE -- THIS TOOL CAN HELP PREVENT DEVELOPMENT OF NEW COMMERCIAL STRIPS IN SEVERAL WAYS. THE PRACTICE OF PLOTTING RESIDENTIAL STREETS AND LOTS ON A PARCEL OF LAND WHICH ABUTS A HIGHWAY, BUT RESERVING A NARROW STRIP OF LAND ALONG THE HIGHWAY FOR COMMERCIAL DEVELOPMENT SHOULD BE PROHIBITED. IF IT IS PERMITTED, THE COMMUNITY MAY HAVE LITTLE CHOICE BUT TO ZONE THE STRIP FOR BUSINESS WHEN THE BEST USE MAY BE RESIDENTIAL. SUBDIVISION REGULATIONS COULD ALSO REQUIRE BUFFER ZONES AND LARGE SETBACKS ALONG BUSY HIGHWAYS AND THOROUGHFARES.

B. SIGN CONTROL -- EACH MERCHANT TRIES TO OUTDO HIS NEIGHBOR BY PUTTING UP A BIGGER AND FLASHIER SIGN. THE RESULT IS THAT NO INDIVIDUAL SIGN DOES A PROPER JOB OF INFORMING THE PUBLIC BECAUSE IT IS LOST AMONG SO MANY OTHERS.

ASIDE FROM THE UNATTRACTIVE APPEARANCE OF THESE SIGNS, THEY CAN BE A TRAFFIC HAZARD. TRAFFIC CONTROL SIGNS CAN BE HARD TO SEE IN

SUCH A CLUSTER. SOME SIGNS ARE SO COMPELLING THAT THEY CAN DISTRACT A DRIVER'S ATTENTION WHEN IT IS MOST NEEDED ON THE ROAD. THIS IS PARTICULARLY TRUE OF SIGNS WITH MOVING PARTS OR FLASHING LIGHTS AND IN AREAS OF MIXED TOURIST AND THROUGH TRAFFIC.

THE ZONING ORDINANCE CAN CONTROL THE SIZE, NUMBER, PLACEMENT AND TO LIMITED EXTENT, THE DESIGN OF THE SIGN. SIGN CONTROLS SHOULD BE APPLICABLE TO ALL LAND USES THROUGHOUT HENDERSON COUNTY. THE ZONING ORDINANCE, APPLIED COUNTY-WIDE, SHOULD SPELL OUT THE SIGN REGULATIONS AND REQUIRE CONFORMANCE. THE PRE-EXISTING SIGN WHICH DOES NOT CONFORM SHOULD BE REMOVED AFTER A REASONABLE PERIOD OF TIME, 3 TO 5 YEARS IS CUSTOMARILY ALLOWED.

## RESIDENTIAL

### GENERAL

RESIDENCES ARE NORMALLY THE LARGEST USERS OF LAND, REQUIRING MORE DEVELOPMENT AND INSTALLATION OF FACILITIES THAN ANY OTHER LAND USE.

WHEN CONSIDERING RESIDENTIAL LAND USE, RESIDENTIAL AREAS SHOULD BE CONSIDERED AS "NEIGHBORHOODS" AND "COMMUNITIES" RATHER THAN INDIVIDUAL DEVELOPMENTS. IN THIS REGARD, THE THE NEIGHBORHOOD WOULD CONTAIN DWELLING UNITS, CHURCHES AND

PARKS, WHILE THE COMMUNITY WOULD CONTAIN SEVERAL NEIGHBORHOODS AND A WIDER RANGE OF CONVENIENCE STORES, SCHOOLS AND PARKS.

IN PLANNING NEIGHBORHOODS, EMPHASIS SHOULD BE PLACED ON TYING FACILITIES TOGETHER BY A SYSTEM OF COLLECTOR STREETS AND WALKWAYS. NEIGHBORHOODS MAY BE BOUND BY MAJOR THOROUGHFARES, BUT SHOULD NEVER BE CROSSED BY THEM.

### RURAL SETTLEMENTS

LANDS ALONG PUBLIC ROADS HAVE BEEN DEVELOPED AS "NEIGHBORHOODS" OR "RURAL SETTLEMENTS" FOR YEARS. HENDERSON COUNTY HAS MANY NEIGHBORHOODS LOCATED ON MOST MAJOR TRAFFIC ARTERIES. U.S. 25, 176, 191, 280, 64, KANUGA ROAD AND NORTH AND SOUTH RUGBY ROAD ALL HAVE HIGH CONCENTRATIONS OF SINGLE FAMILY RESIDENCES. THE REAL ESTATE DEVELOPERS IN HENDERSON COUNTY ESTIMATE THE AVERAGE PRICE OF A NEW HOME IN ONE OF THESE NEIGHBORHOODS TO BE BETWEEN \$40-43,000. THE REGISTER OF DEEDS OFFICE HAS OVER 250 SUBDIVISIONS RECORDED, SOME ACTIVE, SOME COMPLETED. THE COUNTY SHOULD CONSIDER THE APPLICATION OF SUBDIVISION GUIDELINES TO REGULATE THE DIVISION OF LAND IN THE FUTURE.

TO PROTECT PUBLIC HEALTH, ALL BUT THE LOWEST DENSITY RESIDENTIAL AREAS SHOULD BE SERVED BY PUBLIC WATER AND SEWER. FOR THE SAME REASON, AND TO AVOID PROPERTY DAMAGE, LAND WHICH IS SUBJECT TO FLOODING SHOULD NOT BE USED FOR RESIDENCES.

THE LARGEST RURAL SETTLEMENT IN THE COUNTY IS THE COMMUNITY OF FLETCHER. FLETCHER HAS A SMALL BUT EXPANDING

COMMERCIAL AREA ALONG U. S. 25 WITH MOST OF THE RESIDENTIAL DEVELOPMENT CONSISTING OF SCATTERED SINGLE-FAMILY RESIDENCE, CANE CREEK INDUSTRIAL PARK, I-26, ASHEVILLE AIRPORT AND CONTINUED COMMERCIAL DEVELOPMENT IN BUNCOMBE COUNTY ALONG U. S. 25 AS WELL AS IN HENDERSON COUNTY WILL CONTINUE TO BE DOMINATE FACTORS IN THE DEVELOPMENT OF THE FLETCHER AREA AND HOOPERS CREEK TOWNSHIP.

MILLS RIVER, EDNEYVILLE, TUXEDO, FLAT ROCK, EAST FLAT ROCK, ETOWAH, DANA, FRUITLAND, MOUNTAIN HOME AND NAPLES ARE OTHER RURAL COMMUNITIES IN HENDERSON COUNTY. MOST OF THESE COMMUNITIES HAVE ACTIVE COMMUNITY CLUBS WHICH ACT AS A FOCUS-ING POINT FOR PROGRAMS, ACTIVITIES AND COMMUNITY PROJECTS.

THE LARGE NUMBER OF SUBDIVISIONS AND THE HIGH AVERAGE COST OF A HOME IN HENDERSON COUNTY SHOULD PROMPT PUBLIC OFFICIALS TO ENACT PROTECTIVE ORDINANCES SUCH AS ADOPTING THE NORTH CAROLINA STATE BUILDING CODE AND A COUNTY SUBDIVISION ORDINANCE.

MORE DETAILED INFORMATION ON HOUSING WILL BE CONTAINED IN A HOUSING STUDY TO BE COMPLETED IN JULY, 1977.

### MOBILE HOMES

MOBILE HOMES HAVE BEEN USED AS YEAR-ROUND HOUSING FOR MORE THAN 25 YEARS; HOWEVER, THEIR USE IN LARGE NUMBERS IS A RELATIVELY NEW PHENOMENON. MOBILE HOMES HAVE INCREASED IN USE SO RAPIDLY IN RECENT YEARS THEY HAVE CREATED PROBLEMS FOR LOCAL GOVERNMENTS AND LOCAL HEALTH DEPARTMENTS. RECOGNIZING THE FACT THAT THEY REPRESENT A GOOD HOUSING RESOURCE, AND



DESPITE THE PROBLEMS THEY PRESENT, MOBILE HOMES WILL BE WITH US IN GROWING NUMBERS FOR SOME TIME TO COME. THIS SECTION OF THE LAND USE PLAN WILL ADDRESS THE QUESTION OF HOW HENDERSON COUNTY CAN BEST SERVE THE RESIDENTS OF THE COUNTY CHOOSING MOBILE HOMES AS PERMANENT OR SEASONAL HOMES.

IN THIS STUDY THE MOBILE HOME IS CONSIDERED A FACTORY-FABRICATED HOUSING UNIT, DESIGNED, ENGINEERED AND BUILT FOR USE AS A PERMANENT RESIDENCE. IT IS BUILT ONTO A STRUCTURAL FRAME OR CHASSIS AND HAS WHEELS. GENERALLY IT IS TOWED BY TRUCK TO A HOMESITE WHERE, IN NORTH CAROLINA, 95% OF ALL MOBILE HOMES WILL REMAIN. MOST MOBILE HOMES ARE SOLD FULLY FURNISHED WITH BUILT-IN APPLIANCES AND FREE-STANDING FURNITURE.

THE SINGLE-WIDE MOBILE HOME IS MOST COMMON, BUT "DOUBLE-WIDES" ARE BECOMING INCREASINGLY MORE POPULAR. THE SINGLE WIDE GENERALLY MEASURES 12 FEET WIDE BY 65 FEET LONG AND PROVIDES APPROXIMATELY 744 SQUARE FEET OF LIVING SPACE. DOUBLE-WIDES CONSIST OF 2 SEPARATE UNITS CONNECTED SIDE BY SIDE TO FORM 1 SEPARATE DWELLING UNIT. AVERAGE SIZE OF A DOUBLE-WIDE UNIT IS 24 X 60 FEET AND PROVIDES APPROXIMATELY 1500 SQUARE FEET OF LIVING SPACE.

#### TENURE AND MOBILITY

MOST MOBILE HOMES IN HENDERSON COUNTY ARE OWNER-OCCUPIED. THERE IS A SUBSTANTIAL PROPORTION OF RENTED UNITS, ABOUT 20% OF THE TOTAL, SCATTERED THROUGHOUT THE COUNTY AND LOCATED IN PARKS.

ACCORDING TO THE NORTH CAROLINA DEPARTMENT OF INSURANCE,



95% OF ALL MOBILE HOMES PURCHASED IN NORTH CAROLINA NEVER MOVE FROM THEIR ORIGINAL SITE. MOBILE HOMES MOVE FROM PARK TO PARK, BUT A SUBSTANTIAL MOVING COST IS INVOLVED.

THE UNITED STATES POPULATION IS FAIRLY MOBILE AND NATIONAL MOBILE HOME DATA SUGGESTS THAT MOBILE HOME RESIDENTS ARE NO MORE TRANSIENT THAN OTHER SINGLE-FAMILY HOME OWNERS. THIS DATA INDICATES THAT MOBILE HOMES SERVE THEIR OCCUPANTS FOR ONLY A SHORT PERIOD OF TIME. MOBILE HOMES APPARENTLY SERVE A CERTAIN PORTION OF THE TRADITIONAL RENTAL HOUSING MARKET AND HELP DEFER SOME OF THE DEMAND FOR CONVENTIONAL SINGLE-FAMILY HOUSING.

#### SITE RENTAL

SITE RENTALS IN MOBILE HOME PARKS IN HENDERSON COUNTY ARE IN A RANGE BETWEEN \$20 AND \$50 PER MONTH, NOT INCLUDING HEATING FUEL OR ELECTRICITY. THIS FEE IN MOST CASES PROVIDES ADEQUATE, NON-LUXURY SITES WITH WATER AND SEWER SERVICE, AND IN MOST CASES, WASTE COLLECTION.

#### MOBILE HOME UNITS

A SUBSTANTIAL NUMBER OF MOBILE HOMES IN HENDERSON COUNTY ARE NEW UNITS WHICH MAY BE DESCRIBED AS GOOD, COMPACT HOUSING. NEW UNITS SOLD IN NORTH CAROLINA AFTER SEPTEMBER, 1971, ARE SUBJECT TO THE STATE MOBILE HOME CONSTRUCTION CODE. USE OF THIS CODE IS LIKELY TO REDUCE SAFETY HAZARDS ASSOCIATED WITH MOBILE HOME LIVING. THE SAFE AND USEFUL LIFE OF MOBILE HOME UNITS THAT COMPLY WITH THE STATE CODE IS ESTIMATED, BY THE

NORTH CAROLINA DEPARTMENT OF INSURANCE, TO BE 20 TO 25 YEARS.

A MINORITY (BUT STILL SIGNIFICANT NUMBER) OF MOBILE HOMES IN HENDERSON COUNTY ARE OLDER UNITS ABOUT WHICH WE KNOW VERY LITTLE. INDICATIONS ARE THAT THESE OLDER UNITS ARE LESS SATISFACTORY THAN NEWER UNITS, MORE SUBJECT TO FIRES, AND MORE OF A MAINTENANCE PROBLEM TO THE OWNER.

### PARKS

A LARGE PERCENTAGE OF MOBILE HOMES IN HENDERSON COUNTY ARE LOCATED IN SOME 89 MOBILE HOME PARKS RANGING FROM 4 TO 150 RENTAL SITES. THERE APPEARS TO BE AN ACCELERATING TREND TO LOCATE MOBILE HOMES IN PARKS, BUT THE AVAILABILITY OF SUITABLE LAND FOR THESE PARKS IS BECOMING SCARCE.

MOST PARKS IN THE COUNTY ARE SMALL IN SIZE, AND BY AND LARGE MEET MINIMUM HEALTH STANDARDS. RELATIVELY FEW PARKS ACCOMMODATE OVER 50 UNITS AND EVEN FEWER OFFER QUALITY PARK AMENITIES.

MONTHLY RENTALS RANGE BETWEEN \$20 AND \$50, WITH \$35 MOST FREQUENT. RETURNS WITHIN THIS RANGE OFFER LITTLE INCENTIVE TO PARK DEVELOPERS FOR INVESTING IN ABOVE AVERAGE FACILITIES AND SERVICES. THERE IS EVIDENCE IN HENDERSON COUNTY TO JUSTIFY LOCAL GOVERNMENT REQUIRING MOBILE HOME PARK DEVELOPMENT STANDARDS TO UPGRADE EXISTING CONDITIONS. EMPHASIS SHOULD BE GIVEN TO PROVIDING ADEQUATE LOT SIZES AND ENCOURAGING WATER AND SEWER SYSTEMS AS AN ALTERNATIVE TO WELLS AND SEPTIC TANKS.

## LOCATION STANDARDS

IN JUNE, 1975, THE LAND-OF-SKY REGIONAL COUNCIL CONDUCTED AND PUBLISHED A HOUSING INVENTORY STUDY WHICH INDICATED THAT OUT OF 18,221 DWELLING UNITS IN HENDERSON COUNTY, 2,695 WERE MOBILE HOMES. APPROXIMATELY HALF OF THESE UNITS WERE LOCATED WITHIN HENDERSONVILLE TOWNSHIP. INFORMATION OBTAINED FROM THE HENDERSON COUNTY HEALTH DEPARTMENT AND A RECENT SURVEY OF MOBILE HOME PARKS BY THE HEALTH DEPARTMENT AND PLANNING DEPARTMENT INDICATES THAT THE NUMBER OF MOBILE HOMES IN THE COUNTY HAS INCREASED SIGNIFICANTLY SINCE THE TIME OF THE HOUSING SURVEY BY LAND-OF-SKY REGIONAL COUNCIL. APPROXIMATELY 2,000 MOBILE HOME UNITS ALONE ARE LOCATED IN SOME 89 MOBILE HOME PARKS THROUGHOUT THE COUNTY.

THE DEGREE OF CONCENTRATION OF MOBILE HOME UNITS RANGES FROM INDIVIDUAL UNITS TO LARGE MOBILE HOME PARKS (10 MOBILE HOME PARKS CONTAIN 50 OR MORE UNITS).

AT THE PRESENT TIME, MOBILE HOMES IN THE UNINCORPORATED AREAS OF HENDERSON COUNTY ARE CONTROLLED ONLY BY STATEWIDE, LOCALLY-ENFORCED REGULATIONS REGARDING WATER SUPPLY AND SEWAGE DISPOSAL. STATEWIDE REGULATIONS REGARDING PLUMBING, ELECTRICAL WIRING AND CONSTRUCTION STANDARDS MAY ALSO BE ENFORCED LOCALLY, BUT HAVE LITTLE TO DO WITH MOBILE HOMES AS LAND USERS. THE HEALTH DEPARTMENT IS CHARGED WITH INSURING THAT WATER SUPPLIES AND SEWAGE DISPOSAL FACILITIES ARE ADEQUATE TO PROTECT PUBLIC HEALTH. THIS NORMALLY MEANS THAT MOBILE HOMES MUST BE ON LOTS OF CERTAIN SIZE, WHERE SOILS ARE ADEQUATE FOR SEPTIC TANK FIELDS, AND THAT WELLS ARE INSTALLED IN

PROPER RELATIONSHIP TO SEPTIC TANK FIELDS.

MOBILE HOMES, WHETHER IN A PARK WITH A HUNDRED OTHER MOBILE HOMES, OR ON A SINGLE LOT IN A RURAL AREA, ARE RESIDENTIAL LAND USES. THE FACT THAT SOMEONE IS RENTING OUT LAND OR MOBILE HOMES THEMSELVES AS A BUSINESS IS SUBORDINATE TO THE FACT THAT MOBILE HOME DEVELOPMENTS FUNCTION MUCH LIKE ANY OTHER RESIDENTIAL NEIGHBORHOOD. THEY NEED RECREATIONAL OPPORTUNITIES, STREET LIGHTS, AND OTHER PUBLIC SERVICES.

THE DENSITY OF DWELLING UNITS IS NORMALLY HIGHER IN MOBILE HOME PARKS THAN IN CONVENTIONAL SUBDIVISIONS. MOBILE HOMES APPEAL TO SOME OF THE SAME PEOPLE WHO ARE ATTRACTED TO TOWNHOUSES AND GARDEN APARTMENTS; YOUNG COUPLES WITH SMALL CHILDREN WHO ARE NOT YET ABLE TO AFFORD A CONVENTIONAL HOME, RETIRED PERSONS WHO DO NOT WANT THE RESPONSIBILITIES OF MAINTAINING A LARGE HOME AND YARD, AND INDIVIDUALS WHO ARE SUBJECT TO TRANSFERS AND FREQUENT MOVES.

MOBILE HOME PARKS SHOULD BE CONSIDERED AS MULTI-FAMILY RESIDENTIAL AREAS AND LOCATION STANDARDS SIMILAR TO THOSE USED FOR "MEDIUM DENSITY AREAS" SHOULD APPLY IN ZONED AREAS.

#### DEVELOPMENT STANDARDS FOR MOBILE HOME PARKS

THE CENTRAL CONCERN OF A MOBILE HOME PARK DEVELOPMENT SHOULD BE THAT OF PROVIDING A GOOD RESIDENTIAL ENVIRONMENT. A MOBILE HOME PARK ORDINANCE SHOULD BE ADOPTED AND ENFORCED IN HENDERSON COUNTY TO INSURE AT LEAST MINIMAL DESIGN REQUIREMENTS ARE MET BY THE DEVELOPER AND THAT THE OCCUPANT OF THE MOBILE HOME PARK CAN EXPECT A SAFE AND HEALTHY LIVING



ENVIRONMENT FOR HIMSELF AND FAMILY.

THE ORDINANCE SHOULD REQUIRE MINIMUM LOT SIZES, SPACING AND SETBACKS TO INSURE ADEQUATE PARKING, LIGHT, AIR, CONSTRUCTION OF STORAGE FACILITIES, PATIOS AND OTHER AMENITIES THAT ENCOURAGE QUALITY DEVELOPMENTS. STREET DESIGN AND WATER AND SEWER REQUIREMENTS SHOULD ALSO BE CONSIDERED IN THE DEVELOPMENT OF MOBILE HOME PARKS. STANDARDS SHOULD BE ESTABLISHED FOR DEAD-END DRIVES. THESE MIGHT INCLUDE PROVISIONS FOR PAVED, CIRCULAR CUL-DE-SACS OR VARIATIONS TO PROVIDE ADEQUATE TURN-AROUNDS. PROVISIONS FOR WATER AND SEWER CONNECTIONS TO MUNICIPAL SYSTEMS SHOULD BE ENCOURAGED AND WHEN POSSIBLE SHOULD BE REQUIRED.

RECREATION SPACE REQUIREMENTS SHOULD BE ENCOURAGED. THE SPACE REQUIRED SHOULD BE BASED UPON THE NUMBER OF UNITS IN THE MOBILE HOME PARK (OR PROPOSED PARK) THUS MAKING THE RECREATIONAL AREA DIRECTLY PROPORTIONAL TO THE SIZE AND DENSITY OF THE PARK. THIS APPROACH SEEMS MORE REASONABLE FOR HENDERSON COUNTY THAN BASING THE RECREATIONAL AREA ON A PERCENTAGE OF THE TOTAL LAND AREA OF THE PARK.

FIRE PROTECTION SHOULD BE SUBJECT TO THE RULES AND REGULATIONS OF THE FIRE DISTRICT, IF ANY, IN WHICH THE PARK IS LOCATED. THIS MAY INVOLVE THE INSTALLATION OF FIRE HYDRANTS, ALARMS, ETC. IT WOULD BE A DESIRABLE REQUIREMENT TO HAVE A SMALL FIRE EXTINGUISHER IN EACH MOBILE HOME, IN GOOD WORKING CONDITION, BEFORE ELECTRICAL CONNECTIONS MAY BE MADE TO THE HOME.

MOBILE HOME PARK DEVELOPERS SHOULD PROVIDE ANCHORS AT



EACH MOBILE HOME SPACE FOR THE OCCUPANT TO TIE DOWN THE MOBILE HOME. A FEW EXISTING PARKS REQUIRE TIE DOWNS. ALL MOBILE HOMES IN HENDERSON COUNTY SHOULD BE TIED DOWN FOR PROTECTION OF THE OCCUPANT, FAMILY AND NEIGHBORS.

#### LOCATION STANDARDS FOR INDIVIDUAL MOBILE HOMES

INDIVIDUAL MOBILE HOMES LOCATED OUTSIDE A MOBILE HOME PARK ON INDIVIDUAL LOTS ARE FOUND THROUGHOUT HENDERSON COUNTY. THEY ARE FOUND SHARING A LOT WITH CONVENTIONAL SINGLE FAMILY HOMES AND IN RURAL AREAS ON LOTS BY THEMSELVES.

MINIMUM LOT SIZES SHOULD BE REQUIRED NOT ONLY FOR OBVIOUS HEALTH REASONS, BUT TO INSURE ADEQUATE DISTANCES BETWEEN HOMES AND RELATED STRUCTURES. OVER-CROWDING OF LOTS SHOULD BE DISCOURAGED. MINIMUM SETBACK FROM ROADS AND DRIVES SHOULD BE REQUIRED. MANY CITIES AND COUNTIES REQUIRE THE REMOVAL OF WHEELS FROM THE HOME AND CONSTRUCTION OF A PERMANENT FOUNDATION BEFORE ELECTRICAL CONNECTIONS ARE APPROVED. THE STANDARDS FOR INDIVIDUAL MOBILE HOMES, AS FOR PARKS, SHOULD REQUIRE TIE-DOWNS FOR THE SAFETY OF THE INDIVIDUALS LIVING IN THE MOBILE HOME AS WELL AS THE SAFETY OF THEIR NEIGHBORS.

THE FEDERAL HOUSING ADMINISTRATION AND VETERANS' ADMINISTRATION OFFER FINANCIAL ASSISTANCE FOR THE DEVELOPMENT OF MOBILE HOME PARKS AND SUBDIVISIONS AND FOR THE PURCHASE OF MOBILE HOMES. IT IS IMPORTANT THAT LOCAL ORDINANCES RECOGNIZE FEDERAL REQUIREMENTS AND NOT REQUIRE ANYTHING PROHIBITED BY FEDERAL REGULATIONS.

### MOBILE HOME SUBDIVISIONS

MOBILE HOME SUBDIVISIONS DIFFER FROM MOBILE HOME PARKS IN THAT LOTS FOR MOBILE HOMES ARE SOLD RATHER THAN RENTED. AT THE PRESENT TIME, THERE ARE NO KNOWN MOBILE HOME SUBDIVISIONS IN HENDERSON COUNTY. BECAUSE THEY ARE SUBDIVISIONS IN THE LEGAL SENSE, MOBILE HOME SUBDIVISIONS WILL HAVE TO BE APPROVED UNDER THE HENDERSON COUNTY SUBDIVISION ORDINANCE WHEN ADOPTED.

### SOURCES:

NORTH CAROLINA AGRICULTURAL EXTENSION SERVICE.

HENDERSONVILLE CHAMBER OF COMMERCE.

REGION B, LAND-OF-SKY REGIONAL COUNCIL, SELECTED INDUSTRIAL SITES, 1977.

LAND-OF-SKY REGIONAL COUNCIL HOUSING INVENTORY, JUNE, 1975.

HENDERSON COUNTY HEALTH DEPARTMENT.

NORTH CAROLINA DEPARTMENT OF INSURANCE.

## CHAPTER 9

### EXISTING LAND USE

#### PURPOSE

THE PURPOSE OF THE LAND USE PLAN IS TO PROVIDE A BASIC FRAMEWORK FOR THE GENERAL GUIDANCE OF FUTURE GROWTH AND RENEWAL.

SINCE IT IS UNLIKELY THAT DRASTIC CHANGES IN THE PRESENT PHYSICAL MAKEUP OF HENDERSON COUNTY WILL OCCUR, IT IS NECESSARY TO ANALYZE THE PRESENT PHYSICAL MAKEUP OF EXISTING LAND USE. IF IT IS TO BE HELD VALID, THE LAND USE PLAN MUST TAKE INTO CONSIDERATION THE EXISTING LAND USE OF HENDERSON COUNTY AND ADJOINING COUNTIES.

#### METHODS AND TECHNIQUES

THE HENDERSON COUNTY LEAGUE OF WOMEN VOTERS AND THE HENDERSON COUNTY BOARD OF REALTORS IN A COOPERATIVE EFFORT WITH THE NORTH CAROLINA OFFICE OF STATE PLANNING, MADE FIELD INVESTIGATIONS DURING THE SUMMER OF 1975 TO DETERMINE THE LAND USE IN HENDERSON COUNTY. USING THESE FIELD SURVEYS AND AERIAL PHOTOGRAPHS, THE OFFICE OF STATE PLANNING PREPARED A SERIES OF MAPS FOR HENDERSON COUNTY. AMONG THE MAPS PREPARED WAS EXISTING LAND USE.

LAND WAS CLASSIFIED INTO ONE OF THE FOLLOWING CATEGORIES:

INDUSTRIAL - LANDS DEVOTED TO THE PRODUCTION OF GOODS

RESIDENTIAL - LANDS USED FOR RESIDENTIAL PURPOSES,  
PRIMARILY URBAN AREAS

PUBLIC - SEMI-PUBLIC - LANDS USED FOR PUBLIC BUILDINGS  
INCLUDING CHURCHES, SCHOOLS, GOVERNMENTAL  
OFFICES AND HOSPITALS

RURAL SETTLEMENT - LANDS CONTAINING RURAL RESIDENTIAL  
DEVELOPMENT. THESE AREAS CONTAIN EITHER FEWER  
THAN 500 RESIDENTS WITH A ONE QUARTER MILE  
AREA OR HAVE AN AVERAGE POPULATION DENSITY OF  
LESS THAN ONE FAMILY PER ACRE

LOW INTENSITY USES - LANDS USED FOR ACTIVITIES SUCH AS  
SUMMER CAMPS, GOLF COURSES AND PUBLIC PARKS.  
THESE ESTABLISHMENTS ARE FURTHER DIVIDED INTO  
THOSE OPERATED AS COMMERCIAL VENTURES AND  
THOSE OPERATED BY PUBLIC OR QUASI-PUBLIC  
ORGANIZATIONS

VEGETATIVE COVER - INCLUDES LAND USED FOR PASTURELAND,  
CROPLAND, ORCHARDS, VARIOUS TYPES OF FORESTS

#### MEASURING THE DATA

THROUGH THE EFFORTS OF THE LAND-OF-SKY REGIONAL COUNCIL  
AND GENERAL ELECTRIC COMPANY IN BELTSVILLE, MARYLAND, HIGH  
ALTITUDE AERIAL PHOTOGRAPHY WAS USED IN COMPUTING ACREAGE  
DEVOTED TO VARIOUS LAND USES.

THE FOLLOWING TABLE IS A SUMMARY OF EXISTING LAND USE  
IN HENDERSON COUNTY.

TABLE 37

## LAND USE ACREAGE IN HENDERSON COUNTY

TYPE OF USE	No. OF ACRES
URBAN, NON-RESIDENTIAL (COMMERCIAL, INDUSTRIAL USES)	1,800
LOW, MEDIUM & HIGH DENSITY RESIDENTIAL	9,345
TRANSITION	1,442
DEVELOPED OPEN SPACE (PARKS, PLAYGROUNDS, BALLFIELDS, ETC.)	975
PONDS & LAKES	825
UNCLASSIFIED AREAS (CONSTRUCTION, BALD AREAS)	267
FOREST COVER	162,306
AGRICULTURE	64,950
TOTAL	241,921



## USE OF THE DATA

INFORMATION ABOUT THE LOCATION AND QUANTITY OF LAND USE IN THE COUNTY WILL BE USEFUL IN A NUMBER OF STUDIES AND ANALYSES. THE IMMEDIATE PURPOSE OF THE STATISTICAL DATA FOR THE LAND USE PLANNING PROCESS IS TO PROVIDE A GUIDE FOR THE FORMULATION OF SPACE REQUIREMENT STANDARDS. BY COMPUTING THE EXISTING RATIO OF COMMERCIAL OR RESIDENTIAL LAND PER UNIT OF POPULATION, ASSUMPTIONS CAN BE MADE REGARDING THE FUTURE RATIO. APPLYING THE ASSUMED FUTURE RATIO TO THE FUTURE POPULATION FIGURES GIVES A ROUGH ESTIMATE OF THE AMOUNT OF COMMERCIAL OR RESIDENTIAL LAND WHICH WILL BE NEEDED. SINCE IT IS NOW KNOWN HOW MUCH LAND IS USED FOR EACH ACTIVITY, A BETTER JUDGMENT CAN BE MADE ABOUT WHETHER ADDITIONAL LAND SHOULD BE ZONED FOR ANY PARTICULAR ACTIVITY IN THE VICINITY.

## COMMERCIAL

COMMERCIAL ENTERPRISES OUTSIDE THE CITY OF HENDERSONVILLE'S JURISDICTION ARE SCATTERED ALONG MAJOR AND SECONDARY ROADS. THE MAJORITY OF THESE LAND USERS ARE CONVENIENCE GAS AND GROCERY OPERATIONS SERVING THE CITIZENS OF A PARTICULAR COMMUNITY. THOSE LOCATED ALONG MAJOR COMMUTER ROUTES MAY SERVE THE TRAVELING PUBLIC OR OFFER SPECIALITIES OF SOME TYPE THAT ATTRACT REGIONAL SHOPPERS AS WELL AS TOURISTS. THESE OPERATIONS MAY CAUSE THE COMMUNITY PROBLEMS BY PROVIDING POOR ENTRANCES AND EXITS, LOCATING TOO CLOSE TO THE ROAD, POOR PARKING AND CLUTTERED SIGNS. ALL ARE POTENTIAL TRAFFIC HAZARDS.

## RURAL SETTLEMENT

THE LARGEST RURAL SETTLEMENT IN HENDERSON COUNTY IS THE COMMUNITY OF FLETCHER. FLETCHER CONSISTS OF COMMERCIAL LAND USES ALONG U.S. 25 AND SCATTERED SINGLE-FAMILY HOUSING.

OTHER RURAL SETTLEMENTS (COMMUNITITES) ARE TUXEDO, MILLS RIVER, ETOWAH, DANA, FRUITLAND, EDNEYVILLE, BAT CAVE, GERTON, MOUNTAIN HOME, NAPLES, FLAT ROCK, EAST FLAT ROCK, HORSE SHOE, BALFOUR, ZIRCONIA AND AREAS SUCH AS RUGBY ROAD NORTH AND SOUTH, BECAUSE OF THE MANY SUBDIVISIONS. THE PROBLEMS RURAL SETTLEMENTS MAY CAUSE FOR THE COMMUNITY ARE IMPROPER DEVELOPMENT PRACTICES WHICH LEAD TO EROSION PROBLEMS, SEDIMENTATION OF STREAMS. INADEQUATE PRIVATE ROADS AND LIMITATIONS ON WATER AND SEWER DELIVERY.

## INDUSTRIAL

THE LARGEST INDUSTRIAL AREA IN THE PLANNING JURISDICTION OF HENDERSON COUNTY IS CANE CREEK INDUSTRIAL PARK IN HOOPERS CREEK TOWNSHIP NEAR FLETCHER. STEELCASE, EATON, BLUE RIDGE RUBBER COMPANY, WHITE TRUCKING AND PIEDMONT INTERSTATE WAREHOUSE ARE PRESENTLY LOCATED AT THE PARK. WESTERN NORTH CAROLINA WAREHOUSING, DIA-COM, PUTUSCH, CRANSTON PRINT WORKS, AND CAROLINA LOG HOMES ARE LOCATED NEARBY. THE LARGEST SINGLE INDUSTRIAL PLANT IS THE GENERAL ELECTRIC COMPANY LOCATED ON U.S. 176 NEAR EAST FLAT ROCK. THE J. P. STEVENS COMPANY IS LOCATED AT TUXEDO AND BERKELY MILLS AT BALFOUR. HENDERSON COUNTY HAS NO SERIOUS POLLUTION PROBLEMS AS A RESULT OF ITS INDUSTRIES. THE HENDERSONVILLE CHAMBER OF COMMERCE HAS SERVED

THE CITIZENS OF HENDERSON COUNTY WELL BY SCREENING POTENTIAL INDUSTRIAL LOCATERS AND ENCOURAGING ONLY LIGHT, CLEAN INDUSTRY. HOPEFULLY THIS POLICY WILL CONTINUE.

#### PUBLIC AND QUASI-PUBLIC

OUTSIDE THE INCORPORATED AREA OF HENDERSONVILLE, LITTLE LAND IS OCCUPIED BY THIS LAND USE. SCHOOL SITES AND CHURCHES ARE SCATTERED THROUGHOUT THE COUNTY. ONE HOSPITAL, MOUNTAIN SANITARIUM, IS LOCATED NEAR NAPLES; THE FRUITLAND BAPTIST BIBLE INSTITUTE AT FRUITLAND AND THE ANIMAL DIAGNOSTIC CENTER LOCATED NEAR THE ASHEVILLE AIRPORT ARE THE MAJOR LAND USERS IN THIS CATEGORY.

#### LOW INTENSITY USES

THIS GROUP OF LAND USERS CONSISTS OF GOLF COURSES, SUMMER CAMPS, PARKS AND RECREATIONAL AREAS. THESE TYPES OF LAND USES ARE GENERALLY AN ASSET TO THE COUNTY.

THE REMAINDER OF THE LAND USERS ON THE EXISTING LAND USE MAP ARE FOREST LANDS AND AGRICULTURAL USES. THESE LAND USES ARE ALSO AN ASSET TO THE COUNTY AND CAUSE NO SIGNIFICANT PROBLEMS.

#### RESIDENTIAL

THIS CATEGORY OCCURS ONLY IN DEVELOPED URBAN AREAS SUCH AS HENDERSONVILLE AND LAUREL PARK. (BY DEFINITION THESE AREAS CONTAIN MORE THAN 500 RESIDENTS PER SQUARE MILE OR HAVE AN AVERAGE POPULATION DENSITY OF MORE THAN ONE FAMILY PER ACRE.)

TABLE 38  
POPULATION DENSITY AND ACREAGE  
TOWNSHIPS, HENDERSON COUNTY

TOWNSHIP	ACRES	1976 POPULATION	PEOPLE PER SQUARE MILE
CRAB CREEK	26,457	1,480	24
EDNEYVILLE	32,702	2,120	32
GREEN RIVER	37,783	2,300	35
MILLS RIVER	50,100	4,440	53
BLUE RIDGE	24,316	3,880	84
CLEAR CREEK	10,395	1,950	117
HOOPERS CREEK	18,880	4,000	129
HENDERSONVILLE	41,287	27,030	388

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SOURCE: LAND-OF-SKY REGIONAL COUNCIL LAND COVER INVENTORY,  
FINAL REPORT, NOVEMBER 11, 1976.

## SUMMARY

MUCH OF HENDERSON COUNTY STILL REMAINS FORESTED AND UN-DEVELOPED. THE URBAN/RESIDENTIAL DEVELOPMENT IS CONCENTRATED IN THE CITY OF HENDERSONVILLE AND LAUREL PARK. INDUSTRIAL AND COMMERCIAL OPERATIONS ARE SCATTERED THROUGHOUT THE COUNTY WITH HOOPERS CREEK TOWNSHIP CONTAINING THE MAJORITY OF INDUSTRIAL LAND USES. FLETCHER IS THE LARGEST COMMUNITY, WITH MANY OTHERS LOCATED THROUGHOUT THE COUNTY.



A MAP OF EXISTING LAND USE FOR HENDERSON COUNTY IS FOUND ON THE BACK

COVER OF THIS STUDY

## CHAPTER 10

### FUTURE LAND USE

#### GENERAL

IF THE LAND USE PLAN IS GOING TO BE ANYTHING MORE THAN "JUST ANOTHER STUDY," THE WORDS AND MAPS MUST BE TRANSFERRED FROM PAPER TO THE LAND IN HENDERSON COUNTY. MANY TOOLS ARE AVAILABLE TO HENDERSON COUNTY FOR IMPLEMENTING THE LAND USE PLAN. IN DOING SO, A NUMBER OF REGULATORY CODES AND POLICIES WILL HAVE TO BE ADOPTED. THE MOST IMPORTANT CODES HAVE BEEN DISCUSSED BRIEFLY IN OTHER CHAPTERS. SOME OF THESE CODES AND REGULATORY POLICIES FALL INTO A GENERAL CATEGORY OF PUBLIC POLICY SUCH AS UTILITY EXTENSION AND TAXING. OTHERS ARE MORE REGULATORY CODES SUCH AS ZONING AND BUILDING CODES. A DESCRIPTION OF THE MOST IMPORTANT REGULATORY AND PUBLIC POLICY MEASURES ARE DESCRIBED BELOW:

SUBDIVISION REGULATIONS: REQUIRE THE DEVELOPER TO SUBMIT SUBDIVISION PLANS TO THE COUNTY FOR REVIEW AND APPROVAL. THIS PROCESS MAKES IT POSSIBLE FOR STREETS TO BE LAID OUT IN ACCORDANCE WITH THOROUGHFARE PLANS. ADEQUATE PROVISIONS FOR WATER AND SEWER CAN BE ASSURED. IN GENERAL, SUBDIVISION REGULATIONS ENABLE THE COUNTY TO FIT THE DEVELOPMENT INTO A COORDINATED DEVELOPMENT PLAN.

ZONING: MANY PEOPLE REGARD ZONING AS A MEANS OF

CONTROLLING A NUISANCE, HOWEVER, THE PRIMARY PURPOSE OF ZONING IS TO BRING ABOUT AN ORDERLY PATTERN OF LAND USE. ZONING SPECIFICALLY DEFINES THE PURPOSE OF EACH DISTRICT AND PROHIBITS FUTURE USES THAT DO NOT CONFORM TO THE INTENT OF THE ZONING IN THAT DISTRICT.

UTILITY EXTENSION POLICY: SHOULD CONTAIN PROVISIONS FOR EXTENDING UTILITIES SUCH AS WATER AND SEWER. WHEN UTILITIES ARE OFFERED TO CERTAIN SECTIONS OF THE COUNTY, THE LAND BECOMES MORE DESIRABLE FOR DEVELOPMENT. EXTENSIONS OF UTILITIES SHOULD BE COORDINATED WITH THE INFORMATION PRESENTED IN THE LAND USE PLAN.

MOBILE HOME PARK ORDINANCE: MAY BE ADOPTED AS A SEPARATE ORDINANCE OR CONTAINED IN A ZONING ORDINANCE. MINIMUM LOT SIZE, TIE-DOWNS, SOLID WASTE DISPOSAL, WATER AND SEWER AND PARKING ARE MAJOR CONCERNS OF THIS ORDINANCE.

CODE ENFORCEMENT: IS CONCERNED WITH PROTECTING PEOPLE FROM THE HAZARDS OF UNSOUND BUILDING. THESE CODES ARE UNIFORM IN CHARACTER AND SHOULD BE APPLIED TO THE ENTIRE COUNTY. BUILDING, PLUMBING AND ELECTRICAL CODES OF THE NORTH CAROLINA DEPARTMENT OF INSURANCE SHOULD BE ENFORCED IN ALL OF HENDERSON COUNTY AS

CODES HELP ELIMINATE BLIGHTED STRUCTURES AND MAINTAIN THE QUALITY OF RESIDENTIAL AND COMMERCIAL STRUCTURES.

### DEFINITIONS

THE FOLLOWING SYSTEM OF LAND CLASSIFICATION HAS BEEN DEVELOPED TO MAKE DISCUSSIONS OF LAND USE PATTERNS UNIFORM:

DEVELOPED: LAND CURRENTLY DEVELOPED FOR URBAN PURPOSES AND PROVIDED WITH USUAL MUNICIPAL SERVICES INCLUDING AT LEAST PUBLIC WATER, SEWER, AND RECREATIONAL FACILITIES AND POLICE AND FIRE PROTECTION.

TRANSITION: LANDS CURRENTLY DEVELOPED FOR URBAN SERVICES, AND SUCH ADDITIONAL LANDS AS ARE NECESSARY TO ACCOMMODATE THE URBAN POPULATION AND ECONOMIC GROWTH ANTICIPATED WITHIN THE COUNTY AT AN AVERAGE DENSITY OF 2000 PERSONS PER SQUARE MILE OVER A 10 YEAR PERIOD. THESE ADDITIONAL LANDS SHOULD BE SERVED BY PUBLIC WATER, SEWER, AND OTHER URBAN SERVICES INCLUDING PUBLIC STREETS, AND SHOULD BE GENERALLY FREE OF SEVERE PHYSICAL LIMITATIONS FOR URBAN DEVELOPMENT.

COMMUNITY: AREAS WITHIN THE COUNTY CHARACTERIZED BY A MIXTURE OF URBAN LAND USES, INCLUDING AT LEAST RESIDENTIAL AND COMMERCIAL, AND THAT HAVE HISTORICALLY BEEN A FOCUS OF CLUSTERED RURAL SETTLEMENT; OR AREAS

IDENTIFIED BY THE COUNTY AS NECESSARY TO HELP MEET HOUSING NEEDS AND LIMITED COMMERCIAL DEVELOPMENT OVER THE PLANNING PERIOD, AND ARE SUITABLE AND APPROPRIATE FOR CLUSTERED RURAL DEVELOPMENT AT DENSITY APPROPRIATE FOR PUBLIC WATER SERVICE BUT NOT REQUIRING PUBLIC SEWER SERVICE.

MIXED RURAL: LANDS CURRENTLY COMMITTED TO RURAL SETTLEMENT AND OTHER LANDS THAT MIGHT BE DEVELOPED TO HELP MEET FUTURE NEEDS AT RURAL SETTLEMENT DENSITIES WITHOUT REQUIRING PUBLIC WATER OR SEWER SERVICE. THESE LANDS MEET FUTURE NEEDS FOR HOUSING AT LOW DENSITY, FOR PUBLIC FACILITIES NECESSARY TO PROVIDE ESSENTIAL SERVICES TO DEVELOPED OR TRANSITION LANDS, OR TO AN EXTENSIVE RURAL POPULATION, AND FOR LIMITED COMMERCIAL DEVELOPMENT TO SERVE THE TRAVELING PUBLIC AND RURAL POPULATIONS.

KEY INDUSTRIAL SITES: LANDS CURRENTLY COMMITTED TO MAJOR INDUSTRIAL DEVELOPMENT, BUT LOCATED OUTSIDE OF DEVELOPED OR TRANSITION LANDS. THESE LOCATIONS SHOULD BE ADEQUATE IN SIZE FOR FUTURE INDUSTRIAL GROWTH AND SHOULD BE ECONOMICALLY FEASIBLE TO DEVELOP WITHOUT SERIOUS DAMAGE TO THE ENVIRONMENT.

RURAL RESOURCE: LANDS IDENTIFIED AS APPROPRIATE LOCATIONS FOR NATURAL RESOURCE MANAGEMENT AND ALLIED



USES, LANDS WITH HIGH POTENTIAL AS COMMERCIAL AGRICULTURE, FORESTRY OR MINERAL EXTRACTION; LANDS WITH ONE OR MORE LIMITATIONS THAT WOULD MAKE DEVELOPMENT COSTLY AND HAZARDOUS; AND LANDS CONTAINING IRREPLACEABLE, LIMITED, OR SIGNIFICANT NATURAL, RECREATIONAL, OR SCENIC RESOURCES.

CONSERVATION: LANDS THAT ARE UNIQUE, FRAGILE, OR HAZARDOUS FOR DEVELOPMENT, NECESSARY WILDLIFE HABITATS, PUBLICLY OWNED WATERSHEDS, LARGE UNDEVELOPED TRACTS OF FOREST WITH LIMITED ACCESS, LAND WITH ONE OR MORE CHARACTERISTICS WHICH WOULD MAKE DEVELOPMENT UNWISE, LANDS PROVIDING SIGNIFICANT RECHARGE TO GROUND WATER, AND LANDS WHICH CONTAIN SIGNIFICANT NATURAL, SCENIC, OR RECREATIONAL RESOURCES.

## 1985 Land Use

DEVELOPED 1985: LANDS CURRENTLY DEVELOPED WITH URBAN SERVICES, SUCH AS WATER AND SEWER ARE WITHIN THE CORPORATE LIMITS OF THE CITY OF HENDERSONVILLE.

TRANSITION 1985: LANDS NEAR THE CITY OF HENDERSONVILLE AND THE TOWN OF LAUREL PARK OUTSIDE THE ONE MILE TERRITORIAL JURISDICTION OF HENDERSONVILLE HAVE BEEN CLASSIFIED TRANSITION. THESE AREAS ARE

SERVED OR WILL BE SERVED BY PUBLIC WATER AND SEWER DURING THE 10 YEAR PLANNING PERIOD.

COMMUNITY 1985: THE COMMUNITY OF FLETCHER IS THE ONLY COMMUNITY IN THE COUNTY THAT HAS EXISTING PUBLIC WATER AND HAS PLANNED SEWER SERVICE FOR THE NEAR FUTURE. FLETCHER WILL CONTINUE TO GROW NORTH ALONG U.S. 25 TOWARD BUNCOMBE COUNTY AND SOUTH TOWARD MUD CREEK. THE ASHEVILLE AIRPORT AND INTER-STATE 26 ARE IMPORTANT FACTORS INFLUENCING GROWTH PATTERNS IN FLETCHER.

MIXED RURAL 1985: EDNEYVILLE, MILLS RIVER, DANA, FRUITLAND, BAT CAVE, GERTON, HORSE SHOE, ETOWAH, TUXEDO, AND ZIRCONIA WILL BE INCLUDED IN THIS CATEGORY. SOME AREAS MAY BE MORE RESIDENTIAL OR MORE COMMERCIAL THAN OTHERS, BUT IN GENERAL THEY ALL HAVE THE SAME PHYSICAL DEVELOPMENT CHARACTERISTICS.

KEY INDUSTRIAL SITES 1985: MAJOR INDUSTRIAL PLANTS SUCH AS GENERAL ELECTRIC AND BERKELY MILLS ALONG WITH LARGE SITES LIKE CANE CREEK INDUSTRIAL PARK ARE CLASSIFIED AS KEY INDUSTRIAL SITES. CURRENT AND FUTURE INDUSTRIAL SITES ARE IDENTIFIED IN A SEPARATE DOCUMENT.

RURAL RESOURCE 1985: LANDS CLASSIFIED RURAL RESOURCE

ARE MAINLY FLOODPLAINS ALONG THE FRENCH BROAD RIVER AND ITS MAJOR TRIBUTARIES ALONG WITH AGRICULTURAL LAND LOCATED IN THE MILLS RIVER AND FRENCH BROAD RIVER VALLEYS.

CONSERVATION 1985: PISGAH NATIONAL FOREST, HOLMES STATE PARK AND THE GREEN RIVER WILDLIFE MANAGEMENT AREA ARE MAJOR LAND USERS IN THIS CATEGORY. LARGE TRACTS OF LAND IN PRIVATE OWNERSHIP SUCH AS DUKE POWER AND E. I. DUPONT HAVE ALSO BEEN CLASSIFIED CONSERVATION. AREAS OF ENVIRONMENTAL CONCERN ARE IDENTIFIED IN A SEPARATE SECTION.

#### RECOMMENDATIONS FOR IMPLEMENTATION

THE HENDERSON COUNTY LAND USE PLAN SUGGESTS CERTAIN CODES AND ORDINANCES AS A MEANS FOR CORRECTING EXISTING AND PREVENTING FUTURE PROBLEMS OF LAND USE. THE FOLLOWING RECOMMENDATIONS ARE DESIGNED TO IMPLEMENT THE LAND USE PLAN UTILIZING THE MOST APPROPRIATE TOOL AVAILABLE TO NORTH CAROLINA COUNTIES TODAY.

1. THE HENDERSON COUNTY BOARD OF COMMISSIONERS SHOULD FORMALLY ADOPT THE LAND USE PLAN AS AN OFFICIAL COUNTY PLANNING DOCUMENT. DECISIONS BASED ON LAND USE SHOULD BE WEIGHED IN LIGHT OF INFORMATION AND RECOMMENDATIONS PRESENTED IN THE DOCUMENT.

2. THE HENDERSON COUNTY BOARD OF COMMISSIONERS SHOULD BEGIN COUNTY-WIDE ENFORCEMENT OF THE NORTH CAROLINA BUILDING AND PLUMBING CODE WITH STRONGER ENFORCEMENT OF THE ELECTRICAL CODE. A JOINT DEPARTMENT OF INSPECTIONS BETWEEN THE CITY AND COUNTY SHOULD BE ESTABLISHED TO ENFORCE APPLICABLE CODES.

3. A COUNTY-WIDE SUBDIVISION ORDINANCE AND EROSION CONTROL AND SEDIMENTATION ORDINANCE SHOULD BE ADOPTED AND ENFORCED. THESE ORDINANCES SHOULD BE INCORPORATED INTO A JOINT INSPECTIONS DEPARTMENT.

4. A COUNTY-WIDE MOBILE HOME PARK ORDINANCE SHOULD BE ADOPTED AND ENFORCED. THE ORDINANCE ENFORCED BY THE JOINT DEPARTMENT OF INSPECTIONS WOULD BE CONCERNED WITH WATER AND SEWER, LOT SIZES, TIE-DOWNS AND ROADS.

5. HENDERSON COUNTY AND THE CITY OF HENDERSONVILLE SHOULD DEVELOP A UTILITY EXTENSION POLICY WHICH IS CLOSELY RELATED TO LAND USE PLANS.

6. HENDERSON COUNTY COMMISSIONERS SHOULD AMEND AND EXPAND THE EXISTING ZONING ORDINANCE IN ORDER THAT ALL OF HENDERSON COUNTY MIGHT HAVE ZONING PROTECTION.

## LIMITATIONS

THE LAND USE PLAN FOR HENDERSON COUNTY WAS PREPARED UNDER THE RESTRAINT OF PRESENT DAY KNOWLEDGE ABOUT EXISTING CONDITIONS AND UNDER THE ASSUMPTION THAT NO MAJOR BREAK-THROUGH IN UTILITIES, TRANSPORTATION AND RECREATION TECHNOLOGY OCCUR DURING THE NEXT FEW YEARS.

A PLAN WHICH IS LOGICAL TODAY MAY BE OUTMODED IN JUST A FEW YEARS. THE SUGGESTIONS MADE IN THIS PLAN SHOULD BE INTEGRATED INTO AN ON-GOING PLANNING PROCESS THAT REVIEWS AND AMENDS THE PLAN FROM TIME TO TIME. PLANNING SHOULD BE A PROCESS OF CONTINUALLY UPDATING AND REVIEWING GOALS AND OBJECTIVES IN THE LIGHT OF NEW TECHNOLOGY, NEW GOVERNMENTAL STRUCTURES, CHANGING SOCIAL PHILOSOPHIES AND MANY OTHER HUMAN FACTORS.

THE PLAN REPRESENTS GOALS AND DESIRES THAT ARE VERY VALID AT THE PRESENT TIME. WE SHOULD STRIVE FOR THESE GOALS UNTIL THEY ARE ATTAINED. IF THEY ARE TO BE REACHED, EVERY PUBLIC DECISION SHOULD BE EVALUATED IN THE LIGHT OF THE PLAN WHICH REPRESENTS THE COMMUNITY'S GOALS.



REGION B - NORTH CAROLINA  
HENDERSON CO.

1985  
LAND USE PLAN

- |   |            |   |                |
|---|------------|---|----------------|
|  | DEVELOPED  |  | MIXED RURAL    |
|  | TRANSITION |  | RURAL RESOURCE |
|  | COMMUNITY  |  | CONSERVATION   |



LAND OF SKY REGIONAL COUNCIL  
1985 REGIONAL COUNCIL



THE PREPARED OF THIS MAP WAS FOR THE REGIONAL COUNCIL OF THE LAND OF SKY REGIONAL COUNCIL. THE MAP WAS PREPARED BY THE REGIONAL COUNCIL OF THE LAND OF SKY REGIONAL COUNCIL. THE MAP WAS PREPARED BY THE REGIONAL COUNCIL OF THE LAND OF SKY REGIONAL COUNCIL.

## CHAPTER 11

### AREAS OF ENVIRONMENTAL CONCERN

AN AREA OF ENVIRONMENTAL CONCERN FOR PURPOSES OF THIS LAND USE PLAN ARE THOSE LANDS THAT HAVE A DELICATE ENVIRONMENTAL BALANCE SUCH AS PLANT AND WILDLIFE COMMUNITIES OR NATURAL AND SCENIC LANDMARKS SUCH AS ROCK OUTCROPS, RIVER GORGES AND WATERFALLS. THE SOUTHERN HIGHLANDS MOUNTAIN RESOURCES MANAGEMENT PLAN HAS IDENTIFIED 66 AREAS OF ENVIRONMENTAL CONCERN IN HENDERSON COUNTY. THEY ARE IDENTIFIED ON THE MAP ENTITLED, "AREAS OF ENVIRONMENTAL CONCERN" AND A DESCRIPTION OF EACH AREA IS CONTAINED IN TABLE 38.

TABLE 38  
EVALUATIONS OF NATURAL AREAS  
SOUTHERN HIGHLANDS RECREATION STUDY, 1974

1. LITTLE PISGAH MOUNTAIN - NORTHERN RED OAK AND GRASS COMMUNITY. OTHER HIGH ELEVATIONS SPECIES UNCOMMON TO AREA: DUNSMORE MOUNTAIN QUADRANGLE: 20 ACRES.
2. STONEY BALD - RARE YELLOW LADY SLIPPER (CYPRIPEDIUM CALCEOLUS, VAR. PUBESCENS) IS WELL DEVELOPED HERE: DUNSMORE MOUNTAIN QUADRANGLE: 80 ACRES.
3. SOUTH FORK MILLS PRIMITIVE AREA - PLANT AND ANIMAL HABITAT; DESIGNATED WILDERNESS AREA BY USFS. PISGAH FOREST

QUADRANGLE: 1,800 ACRES.

4. SOUTH FORK MILLS RIVER - ISLAND - FLOOD AREA; SUCCESSIONAL PLANT COMMUNITY. SKYLAND QUADRANGLE, 15 ACRES.
5. FORGE MOUNTAIN, OXBOW AND SWAMP - RARE GEOLOGICAL FEATURE HERE. HABITAT NOT VERY COMMON. UNSAMPLED. SKYLAND QUADRANGLE, 40 ACRES.
6. MILLS RIVER SWAMP - UNVISITED. THIS HABITAT IS BECOMING VERY RARE AS LANDS ARE DRAINED FOR OTHER PURPOSES. SKYLAND QUADRANGLE, 20 ACRES.
7. MILLS RIVER OXBOW AND SWAMP - RARE GEOLOGICAL FEATURE FOR THIS REGION AND HABITAT OF DIMINISHING PLANT AND ANIMAL SPECIES. SKYLAND QUADRANGLE, 30 ACRES.
8. BUCK SHOALS - HABITAT OF BENTHIC RIVER SPECIES SUCH AS PODOSTEMUM CERATOPHYLLUM. SKYLAND QUADRANGLE, 20 ACRES.
9. FANNING BRIDGE SWAMP - HABITAT OF RAPIDLY DIMINISHING PLANT AND ANIMAL SPECIES. SKYLAND QUADRANGLE, 15 ACRES.
10. HUCKLEBERRY MOUNTAIN OUTCROPS - UNVISITED. OUTCROPS USUALLY HAVE UNCOMMON PLANT COMMUNITIES. FRUITLAND QUADRANGLE, 40 ACRES.

11. PINEY MOUNTAIN CLIFFS - NOT VERY COMMON FERNS IN CREVICES.  
FRUITLAND QUADRANGLE. 80 ACRES.
12. BALD TOP MOUNTAIN OUTCROPS - GOOD DEVELOPMENT OF CAROLINA  
HEMLOCK (TSUGA CAROLINIANA) AND OTHER OUTCROP SPECIES.  
RESEARCH SITE FOR SOUTHERN HIGHLANDS OUTCROP STUDIES.  
FRUITLAND QUADRANGLE. 200 ACRES.
13. KYLES CREEK OUTCROPS - SCENIC. OUTCROPS USUALLY HAVE  
UNCOMMON PLANT COMMUNITIES. FRUITLAND QUADRANGLE. 10  
ACRES.
14. BANK MOUNTAIN OUTCROPS - UNVISITED. OUTCROPS USUALLY HAVE  
UNCOMMON PLANT COMMUNITIES. FRUITLAND QUADRANGLE. 85  
ACRES.
15. HOOPER CREEK GORGE - UNVISITED. STEEP NORTHERN EXPOSURE  
INDICATIVE OF IMPORTANT PLANT COMMUNITIES. FRUITLAND  
QUADRANGLE. 380 ACRES.
16. BEARWALLOW MOUNTAIN CLIFFS - OUTCROPS USUALLY HAVE  
UNCOMMON PLANT COMMUNITIES. FRUITLAND QUADRANGLE. 10  
ACRES.
17. PUNCHEON CAMP CREEK FALLS - SCENIC. VITTARIA SP. AND  
OTHERS. FRUITLAND QUADRANGLE. 10 ACRES.



18. PITTILLO BOG - WOODLAND BOG CONTAINING UNCOMMON BOG SPECIES AS ORONTIUM AQUATICUM, SARRACENIA PURPUREA, ETC. FRUITLAND QUADRANGLE. 10 ACRES.
19. AZALEA WOODLAND - POPULATION OF RHODODENDRON NUDIFLORUM (PINK AZALEA WITH MUTANT FORMS FROM WHITE TO PURPLISH COLORS). FRUITLAND QUADRANGLE. 10 ACRES.
20. BEARWALLOW MOUNTAIN BALD - GRASS BALD, PASTURED. BAT CAVE QUADRANGLE. 400 ACRES.
21. LITTLE BEARWALLOW MOUNTAIN OUTCROP - UNVISITED. OUTCROPS USUALLY HAVE UNCOMMON PLANT COMMUNITIES. BAT CAVE QUADRANGLE. 300 ACRES.
22. HICKORYNUT GORGE - RUGGED TERRAIN WITH NATURAL AREA FEATURES INCLUDING CLIFFS, RAPIDS, SHOALS, WILDLIFE, ETC. EQUISETUM HYEMALE AND ASIMIN TRILOBA OCCURS IN REEDY PATCH (EDNEY INN ROAD). BAT CAVE QUADRANGLE. 9,280 ACRES.
23. BEAD AND LACE FALLS - UNVISITED. POSSIBLE LOCATION FOR UNCOMMON PLANTS. BAT CAVE QUADRANGLE. 45 ACRES.
24. BURNTSHIRT MOUNTAIN OUTCROP - UNVISITED. OUTCROPS USUALLY HAVE UNCOMMON PLANT COMMUNITIES. BAT CAVE QUADRANGLE. 150 ACRES.



25. TOMS FALLS - POSSIBLE LOCATION FOR UNCOMMON PLANTS. BAT CAVE QUADRANGLE. 10 ACRES.
26. CAMP MINNEHAHA FALLS - POSSIBLE LOCATION FOR UNCOMMON PLANTS. BAT CAVE QUADRANGLE. 10 ACRES.
27. CASCADES OF GRASSY CREEK - SCENIC; TROUT WATER. BAT CAVE QUADRANGLE. 60 ACRES.
28. BALD MOUNTAIN OUTCROPS - STEEP CLIFFS BORDERING GORGE. UNVISITED. BAT CAVE QUADRANGLE. 180 ACRES.
29. RICH MOUNTAIN OUTCROPS - STEEP CLIFFS BORDERING GORGE. BAT CAVE QUADRANGLE. 200 ACRES.
30. STONEY MOUNTAIN OUTCROPS - STEEP CLIFFS BORDERING GORGE. BAT CAVE-HENDERSONVILLE QUADRANGLES. 50 ACRES.
31. CLOVEN CLIFFS - STEEP CLIFFS BORDERING GORGE. BAT CAVE QUADRANGLE. 60 ACRES.
32. RAVEN CLIFFS - STEEP CLIFFS BORDERING GORGE. PROBABLY NOT PRESENTLY INHABITED BY RAVENS. BAT CAVE QUADRANGLE. 110 ACRES.
33. FORK MOUNTAIN OUTCROPS - STEEP CLIFFS BORDERING GORGE. BAT CAVE QUADRANGLE. 90 ACRES.

34. BALD ROCK OUTCROPS - SITE OF RARE PLANT SPECIES, AS ASPLENIUM PINNATIFIDUM, SEDUM TELPHIODES, TALINUM TERETIFOLIUM, ETC. ALSO RESEARCH SITE. BAT CAVE-STANDINGSTONE MOUNTAIN QUADRANGLES. 130 ACRES.
35. HOG ROCK COVE AND OUTCROP - STEEP, RUGGED AREA. UNEXPLORED BOTANICALLY. BAT CAVE QUADRANGLE. 10 ACRES.
36. PILOT MOUNTAIN - RATHER UNIQUE AND PROMINENT RIDGE. UNEXPLORED. REPORTED TO BE ARCHEOLOGICAL SITE. CLIFFFIELD MOUNTAIN QUADRANGLE. 40 ACRES.
37. HUNGRY RIVER GORGE - UNEXPLORED. RUGGED NATURAL AREA. CLIFFFIELD MOUNTAIN QUADRANGLE. 3,900 ACRES.
38. GREEN RIVER GORGE - UNVISITED. CONTACT DR. JIM HARDEN AT N. C. STATE UNIVERSITY FOR DETAILS. CLIFFFIELD MOUNTAIN-HENDERSONVILLE-ZIRCONIA QUADRANGLES. 2,510 ACRES.
39. THE NARROWS - OUTCROPS - VERY RUGGED GORGE AREA. CONTACT DR. JIM HARDEN FOR DETAILS. CLIFFFIELD MOUNTAIN QUADRANGLE. 30 ACRES.
40. THE NARROWS - SHOALS - VERY RUGGED GORGE AREA. CONTACT DR. JIM HARDEN FOR DETAILS. CLIFFFIELD MOUNTAIN QUADRANGLE. 25 ACRES.

41. OSCEOLA LAKE SWAMP - UNEXPLORED. OLD LAKE WITH SWAMP FORMING IN FILL AREA. HENDERSONVILLE QUADRANGLE. 10 ACRES.
42. HIGHLAND LAKE SWAMP - OLD LAKE WITH SWAMP FORMING IN FILL AREA. HENDERSONVILLE QUADRANGLE. 10 ACRES.
43. EAST FLAT ROCK BOGS - SITE OF EXTREMELY RARE PLANTS HERE AND BEING SEVERELY DISRUPTED BY VARIOUS PEOPLE. SITE OF RARE PLANTS AS GALE PALUSTRIS, SALIX CAPREA, WOODWARDIA VIRGINICA, ETC. IMMEDIATE ATTENTION IS IMPERATIVE IF SOME SPECIES ARE TO SURVIVE IN THIS STATE AND REGION. HENDERSONVILLE QUADRANGLE. 10 ACRES.
44. GLASSY MOUNTAIN OUTCROP - UNVISITED. PROBABLE SITE OF LONICERA FLAVA POPULATIONS REPORTED FOR THE COUNTY. HENDERSONVILLE QUADRANGLE. 670 ACRES.
45. MUD CREEK BRIDGE SWAMPS - BEING ENCROACHED UPON BY FARMLANDS. THESE ARE REMNANTS OF PREVIOUSLY EXTENSIVE SWAMPS SURROUNDING HENDERSONVILLE. IT IS UNFORTUNATE ALL ARE LOST AND WOULD BE VERY GOOD IF THIS AREA COULD BE RESERVED. HENDERSONVILLE QUADRANGLE. 35 ACRES.
46. BRIGHT WATER FALLS - SCENIC. UNEXPLORED BOTANICALLY. HORSE SHOE QUADRANGLE. 10 ACRES.
47. JUMP-OFF ROCK - SCENIC PRIMARILY. HORSE SHOE QUADRANGLE.

30 ACRES.

48. PINE KNOB - UNVISITED. G. W. McDOWELL POINTS OUT BOGS HERE ARE ENDANGERED ALONG WITH THE RARE PLANT, SARRACENIA RUBRA. HORSE SHOE QUADRANGLE. 10 ACRES.
49. ETOWAH BOG - PROBABLY DESTROYED. IF REMNANTS EXIST, IT SHOULD BE PROTECTED. HORSE SHOE QUADRANGLE. 10 ACRES.
50. LONG ROCK BRANCH OUTCROP - UNVISITED. PROBABLE RARE PLANTS. STANDINGSTONE MOUNTAIN QUADRANGLE. 50 ACRES.
51. GREEN RIVER OUTCROP - UNVISITED. PROBABLE RARE PLANTS. STANDINGSTONE MOUNTAIN QUADRANGLE. 360 ACRES.
52. MAYBURN MOUNTAIN OUTCROP - PROBABLE RARE PLANTS. STANDINGSTONE MOUNTAIN QUADRANGLE. 80 ACRES.
53. THE PINNACLE - OUTCROP - PROBABLE RARE PLANTS. STANDINGSTONE MOUNTAIN QUADRANGLE. 420 ACRES.
54. ROCK CREEK FALLS - UNVISITED. SCENIC AREA. STANDINGSTONE MOUNTAIN QUADRANGLE. 15 ACRES.
55. JOANNA MOUNTAIN OUTCROPS - THIS LOCATION WAS MAPPED ON THE BASIS OF OUTCROPPINGS ON THE WESTERN SLOPE. NO VISIT HAS BEEN MADE TO THESE BUT THEY NORMALLY HAVE UNCOMMON

PLANT SPECIES. OTHER PORTIONS OF THE REGION ARE WOODED WITH THE USUAL OAK FORESTS. STANDINGSTONE QUADRANGLE. 90 ACRES.

56. STONE MOUNTAIN OUTCROPS - THIS LOCATION WAS MAPPED ON THE BASIS OF OUTCROPPINGS ON THE WESTERN SLOPE. NO VISIT HAS BEEN MADE TO THESE BUT THEY NORMALLY HAVE UNCOMMON PLANT SPECIES. OTHER PORTIONS OF THE REGION ARE WOODED WITH THE USUAL OAK FORESTS. STANDINGSTONE MOUNTAIN QUADRANGLE.
57. SHOAL CREEK FALLS - SCENIC AREA. NO KNOWN RARE PLANTS. STANDINGSTONE MOUNTAIN QUADRANGLE. 25 ACRES.
58. DRY BRANCH OUTCROP - THIS LOCATION WAS MAPPED ON THE BASIS OF OUTCROPPINGS ON THE WESTERN SLOPE. NO VISIT HAS BEEN MADE TO THESE BUT THEY NORMALLY HAVE UNCOMMON PLANT SPECIES. OTHER PORTIONS OF THE REGION ARE WOODED WITH THE USUAL OAK FORESTS. STANDINGSTONE MOUNTAIN QUADRANGLE. 40 ACRES.
59. THE FLATWOOD OUTCROP - NO VISIT HAS BEEN MADE TO THESE BUT THEY NORMALLY HAVE UNCOMMON PLANT SPECIES. STANDINGSTONE MOUNTAIN QUADRANGLE. 250 ACRES.
60. GRASSY MOUNTAIN OUTCROP - UNVISITED. PROBABLE RARE PLANTS. STANDINGSTONE MOUNTAIN QUADRANGLE. 100 ACRES.



61. HUCKLEBERRY RIDGE OUTCROP - UNVISITED. PROBABLE RARE PLANTS. ZIRCONIA QUADRANGLE. 70 ACRES.
62. RICE KNOB OUTCROP - UNVISITED. PROBABLE RARE PLANTS. ZIRCONIA QUADRANGLE. 60 ACRES.
63. MCCARROLL MOUNTAIN OUTCROP - UNVISITED. PROBABLE RARE PLANTS. ZIRCONIA QUADRANGLE. 40 ACRES.
64. PANTHER MOUNTAIN OUTCROP - UNVISITED. PROBABLE RARE PLANTS. ZIRCONIA QUADRANGLE. 30 ACRES.
65. BUTLER MOUNTAIN OUTCROP - UNVISITED. PROBABLE RARE PLANTS. ZIRCONIA QUADRANGLE. 60 ACRES.
66. HUNGRY RIVER SWAMPS - UNVISITED. SWAMP HABITATS ARE RARE IN REGION. CLIFFIELD MOUNTAIN QUADRANGLE. 50 ACRES.

SOURCES:

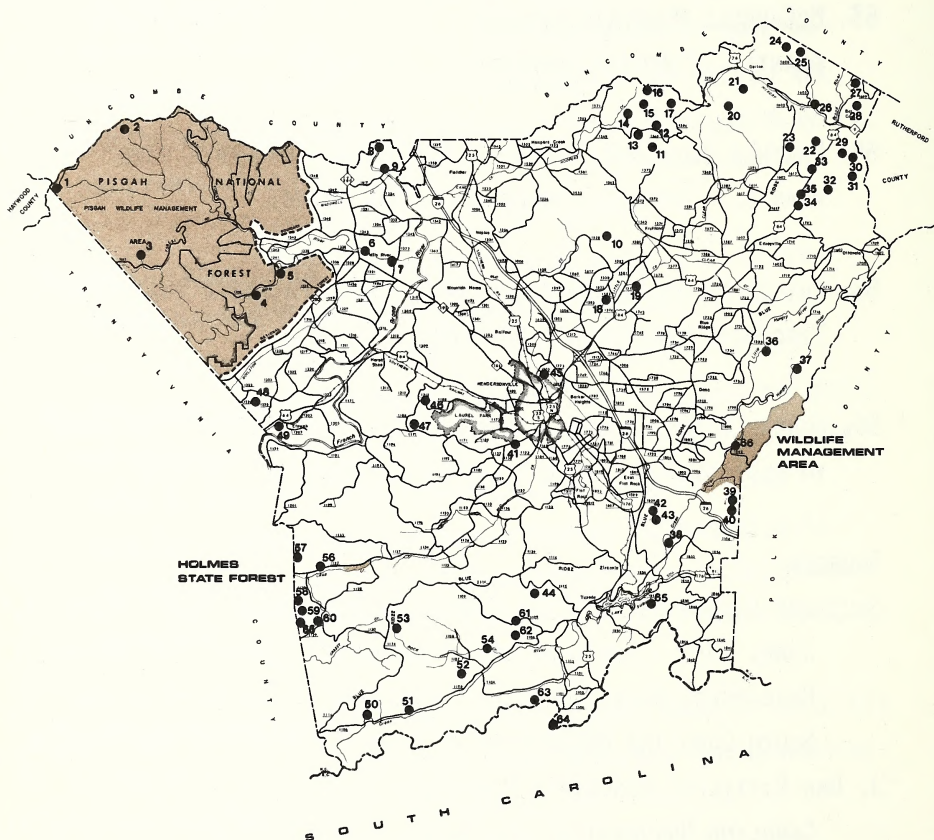
SOUTHERN HIGHLANDS MOUNTAIN RESOURCES MANAGEMENT PLAN. VOL. II, JUNE, 1974. CONTRIBUTORS: GEORGIA DEPARTMENT OF NATURAL RESOURCES; NORTH CAROLINA DEPARTMENT OF ADMINISTRATION; SOUTH CAROLINA DEPARTMENT OF PARKS, RECREATION AND TOURISM. J. DAN PITILLO, ASSOCIATE PROFESSOR OF BIOLOGY, WESTERN CAROLINA UNIVERSITY, CULLOWHEE, NORTH CAROLINA.

## AREAS OF ENVIRONMENTAL CONCERN AND PUBLIC LANDS

66 A.E.C.

 PUBLIC LAND

LAND-OF-SKY REGIONAL COUNCIL



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## THE YELLOW PAGES

### A DIRECTORY OF PUBLIC INFORMATION SOURCES

## PUBLIC AGENCIES

### FEDERAL:

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SOIL CONSERVATION SERVICE  
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GROUND WATER SECTION	EXT. 266
LAND QUALITY SECTION	EXT. 220
WATER QUALITY SECTION	EXT. 242

NORTH CAROLINA INSTITUTE OF GOVERNMENT  
UNIVERSITY OF NORTH CAROLINA  
CHAPEL HILL, NORTH CAROLINA 27514  
TELEPHONE: 919-933-1304

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NORTH CAROLINA WILDLIFE RESOURCES COMMISSION  
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HENDERSON COUNTY BOARD OF COMMISSIONERS  
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AIRPORT ROAD  
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HENDERSON COUNTY PLANNING DEPARTMENT  
COURTHOUSE ANNEX  
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HENDERSON COUNTY ZONING ADMINISTRATOR  
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HENDERSONVILLE WATER DEPARTMENT  
125 SIXTH AVENUE EAST  
HENDERSONVILLE, NORTH CAROLINA 28739  
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HENDERSONVILLE REDEVELOPMENT COMMISSION  
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CITY OF HENDERSONVILLE DEPARTMENT OF INSPECTIONS  
CITY HALL  
HENDERSONVILLE, NORTH CAROLINA 28739  
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HENDERSONVILLE CHAMBER OF COMMERCE  
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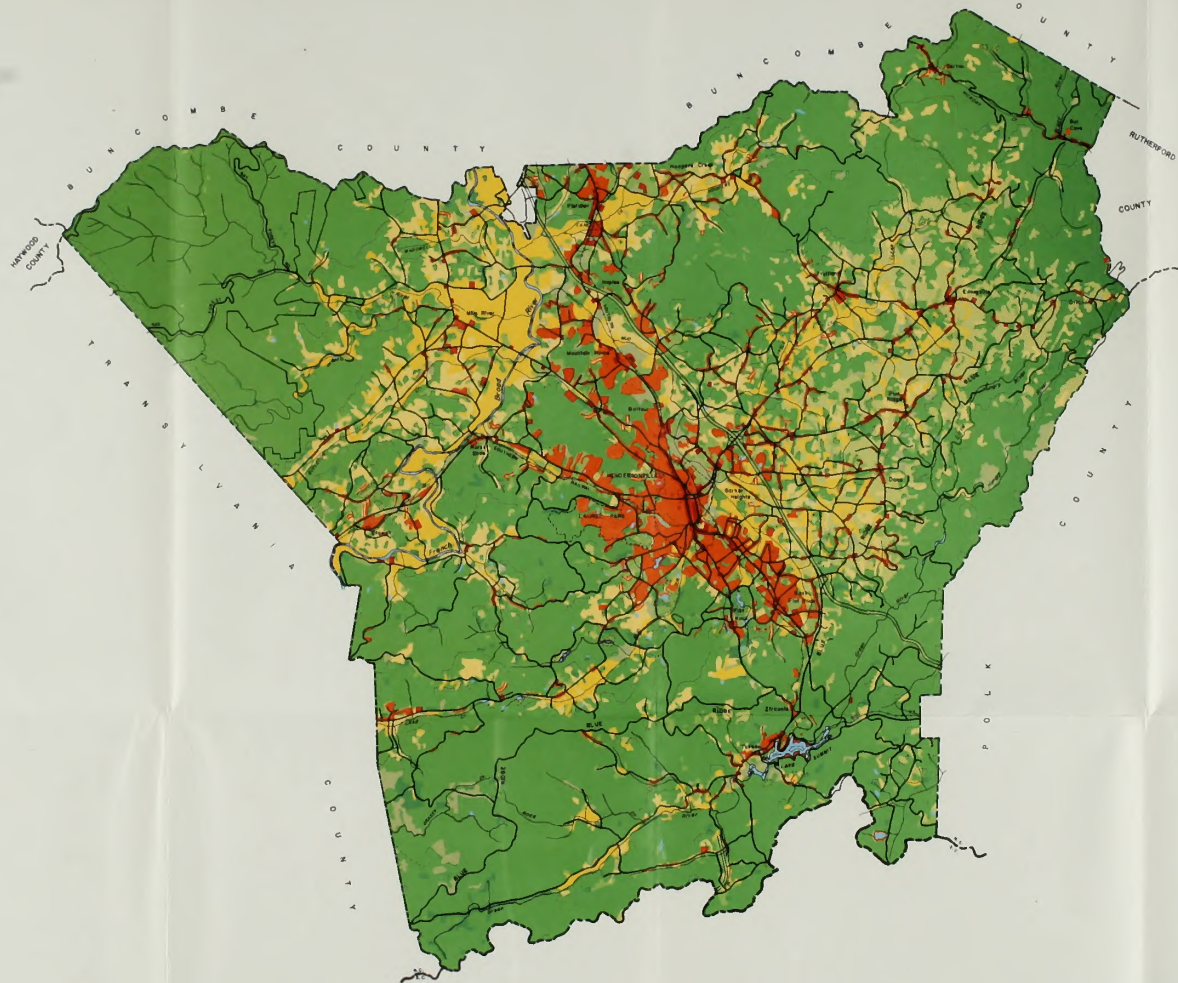
HENDERSONVILLE REDEVELOPMENT COMMISSION  
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#### GENERALIZED LAND USE<sup>1</sup>

- Industrial
- Commercial
- Public and quasi-public
- Residential
  - rural settlements<sup>2</sup>
- Low intensity uses<sup>2</sup>
  - public and quasi-public
  - commercial
- Pastureland
- Cropland
- Other non-forest
- Orchard
- Scrub woods
- Deciduous and mixed forests
- Coniferous forests
- Non-vegetated areas

<sup>1</sup> These areas either (1) contain fewer than 1000 residents within a one square mile area or (2) have an average population density of less than one family per acre.

<sup>2</sup> Golf courses, children's summer camps, and other lands with potential for use that might result in intensive development in the near future.

<sup>3</sup> Information on existing land use was compiled by the Office of State Planning (Raleigh). A working draft of land use planning was prepared by the Henderson County Board of Commissioners in cooperation with the Board of Commissioners and the Henderson County Board of Health and League of Women Voters. (2) aerial photography at a scale of one inch = 2000 feet. United States Agricultural and Information Service, 1972.

County Capability Maps were prepared in the summer of 1973, principally by students interned in the supervision of the Office of State Planning. Members of the county map project staff:

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Cartographic assistance:  
Jane Smith, Office of State Planning  
Tara Ellis  
Peggy Moseley

<sup>4</sup> Analysis of wildlife habitat potential

## HENDERSON COUNTY

MAPS OF EXISTING CONDITIONS

MAP NO. 1

1975



North Carolina Office of State Planning

in cooperation with:  
State Office, United States Soil Conservation Service  
North Carolina Agency of Natural and Economic Resources  
North Carolina Department of Agriculture  
North Carolina Department of Cultural Resources  
School of Design and School of Forest Resources,  
North Carolina State University

Maps of existing conditions in Henderson County were prepared for the purpose of helping to refine proposals for state-wide, county-level land use planning as called for in the North Carolina Land Policy Act of 1974. Information depicted on the maps are representative of the kinds of data that would be required in actual land use planning. However, the completeness and accuracy of these maps was tailored principally to (1) the needs of providing an over-view of county-wide patterns of existing conditions and (2) better understanding the relationship of land use planning proposals to existing patterns of land use. Precision of these maps has also been determined by mapping scale, limitations of available base maps, and precision of data from existing sources.

This map set may be useful in helping to develop preliminary county land use plans, but any preliminary plan maps must be refined on the basis of more detailed information, at least in the proximity of land use district boundaries.

Base map prepared by Land-of-Sky Region, County from county highway maps, Division of Highways, North Carolina Department of Transportation.



